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CORPORATE GOVERNANCE AND ACCOUNTING

INFORMATION QUALITY OF LISTED FIRMS IN GHANA



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DECLARATION

I Mawuena Akosua Kukah do hereby declare that this thesis is a result of my own research work and has not been presented to any other academic institution. All references in the work have been duly acknowledged. I also declare my full responsibility for any shortcomings in this document.

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CERTIFICATION

We hereby certify that this thesis was supervised in accordance with procedures laid down by the University of Ghana.

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DATE



DEDICATION

This entire work is dedicated to the glory of the Almighty God, my lovely family especially my dad Theo for all the prayers, love, care and attention and also to Miss Aliene Boone, God richly bless you.



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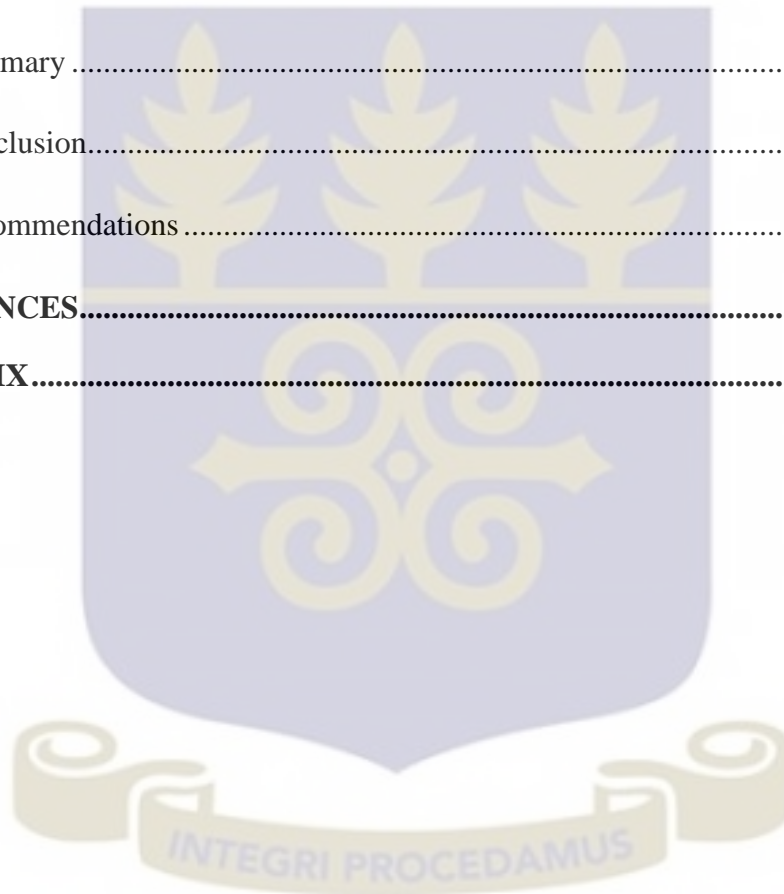
TABLE OF CONTENTS

DECLARATION	i
CERTIFICATION	ii
DEDICATION.....	iii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENTS.....	v
LIST OF TABLES.....	ix
LIST OF ABBREVIATIONS.....	x
ABSTRACT.....	xi
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background to the study.....	1
1.2 Research Problem.....	5
1.3 Research Objectives	7
1.4 Research Questions	8
1.5 Significance of the Study	8
1.6 Scope and Limitations.....	8
1.7 Organization of the Study	9
1.8 Chapter Summary.....	9
CHAPTER TWO	11
CORPORATE GOVERNANCE IN GHANA.....	11
2.1 Introduction	11
2.2 Profile of the Ghana Stock Market.....	11

2.3 Overview of Corporate Governance in Ghana	12
2.4 What is Good Governance?.....	14
2.5 Codes of Corporate Governance in Ghana.....	15
2.6 Chapter Summary.....	23
CHAPTER THREE.....	24
LITERATURE REVIEW	24
3.1 Introduction	24
3.2 Theories on Corporate Governance	24
3.2.1 Agency Theory	24
3.2.2 Stakeholder Theory	25
3.2.3 Stewardship Theory.....	26
3.2.4 Resource Dependence Theory.....	27
3.2.5 Political Theory	28
3.2.6 Theory of Information Asymmetry	28
3.3 Empirical literature.....	29
3.3.1 Corporate Governance Characteristics and Accounting Information Quality... 29	
3.3.2 Ownership and Accounting Information Quality	41
3.3.3 Control Variables and Accounting Information Quality	47
3.4 Chapter Summary.....	48
CHAPTER FOUR.....	49
METHODOLOGY	49
4.1 Introduction	49
4.2 Data Source	49

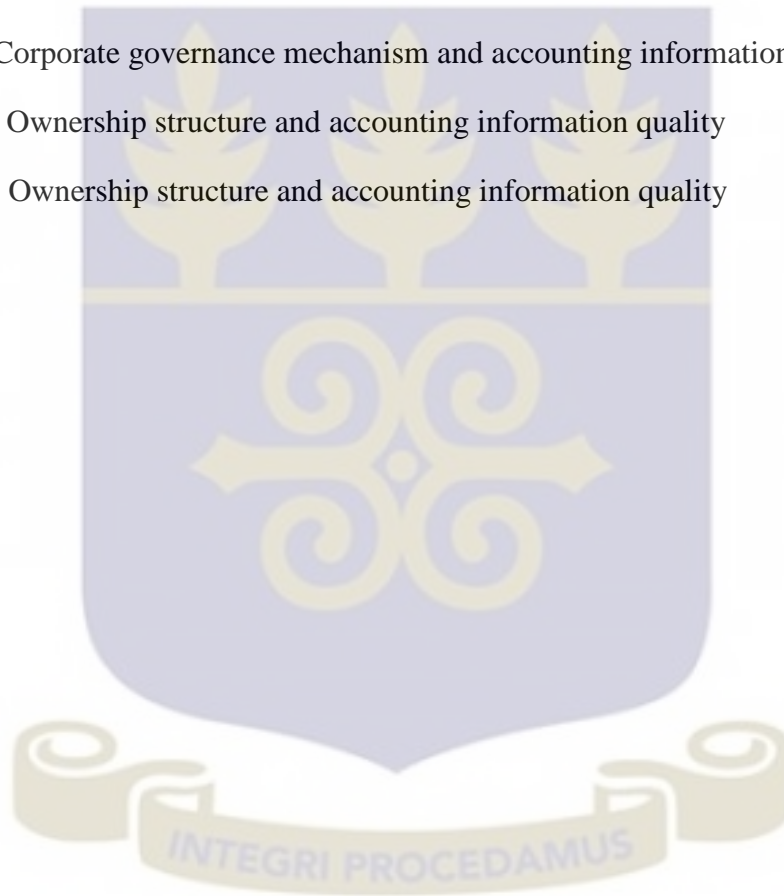
4.3 Population and Sample.....	50
4.4 Research Design.....	50
4.5 Model Development.....	51
4.6 Variable Measurement	51
4.6.1 Accounting Information Quality Variables	51
4.6.2 Corporate Governance Variables	56
4.6.3 Ownership Variables	57
4.6.4 Control Variables.....	59
4.7 Estimation Strategy	60
4.8 Post Estimation Tests	61
4.8.1 Test for Heteroscedasticity	61
4.8.2 Test for Multicollinearity	62
4.8.3 Test of Normality	63
4.8.4 Test for Autocorrelation	63
4.8.5 Test for Linearity.....	64
4.9 Chapter Summary.....	64
CHAPTER FIVE	66
ANALYSIS AND DISCUSSION OF RESULTS	66
5.1 Introduction	66
5.2 Descriptive Summary Statistics	66
5.3 Characteristics of AIQ.....	69
5.3.1 Persistence of Earnings and Cash flows	69
5.3.2 Conservatism	70

5.4 Corporate Governance and Accounting Information Quality	72
5.5 Ownership Structure and Accounting Information Quality	74
5.6 Chapter Summary.....	77
CHAPTER SIX	78
SUMMARY, CONCLUSION AND RECOMMENDATIONS	78
6.1 Introduction	78
6.2 Summary	78
6.3 Conclusion.....	80
6.4 Recommendations	80
REFERENCES.....	82
APPENDIX.....	99



LIST OF TABLES

Table 4.1 Definition of variables and a priori expected signs	60
Table 5.1 Descriptive statistics	66
Table 5.2 Descriptive statistics of dummy variables	68
Table 5.3 Persistence of earnings and cash flows	69
Table 5.4 Conservatism	71
Table 5.5 Corporate governance mechanism and accounting information quality	73
Table 5.6a Ownership structure and accounting information quality	75
Table 5.6b Ownership structure and accounting information quality	76



LIST OF ABBREVIATIONS

AC	Audit Committee
AC Ind	Audit Committee Independence
AIQ	Accounting Information Quality
BSize	Board Size
BSize squared	Board Size Squared
BInd	Board Independence
BDiv	Board Diversity
Big four	Big Four Audit Firms
CEO Dual	CEO Duality
CG	Corporate Governance
DA	Discretionary Accruals
Expert AC	Expert on Audit Committee
Inst Owner	Institutional Ownership
Man Owner	Managerial Ownership
NDA	Non discretionary accruals
OCF	Operational Cash Flow
OE	Operational Earnings
TA	Total accruals

ABSTRACT

Although the issue of corporate governance and accounting information quality appears to be popular amongst developed economies, the same cannot be said for their developing counterparts. European research has documented improved accounting information quality to firms that are engaged in good corporate governance practices. The purpose of this research is to examine the relationship between the internal corporate governance mechanisms and accounting information quality which uses discretionary accrual as a proxy. The empirical research is based on a sample of twenty non-financial institutions listed on the Ghana Stock Exchange for an eleven-year period, (2003-2013). The results of the study show that operational earnings are more persistent than operational cash flow which suggests that in predicting future values from current ones, operational earnings gives a better output than operational cash flows. Also, board independence served as a constraint to the behaviour of the managers. Thus when there are more independent directors on the board, managers would be discouraged from managing earnings leading to a higher level of accounting information quality. Foreign ownership is also seen as a constraint to the opportunistic behaviours of managers therefore firms that have more than fifty percent of its ownership in the hands of foreigner, record a higher level of accounting information quality. The findings of this study have important implication for policy formulators, practice and academia.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Corporate Governance (CG) literature in Africa has not been as extensively researched into as that of developed economies. Okeahalam and Akinboade (2003) believe that weak civil and judicial systems, lack of monitoring and oversight institutions and the lack of proper human resource personnel impede the efforts being made by African countries to get to the level of developed economies with regards to CG issues. The issues of CG in Africa and its successes or failures have been linked to the legal systems that are operated in the countries. A research conducted by Klapper and Love (2002) contend that firm level governance structures are low in countries whose legal systems were seen as weak, and high for those whose legal systems were seen as effective in addressing the country's issues.

CG though not a modern concept, gained much popularity and attention during the high corporate failure era, which saw the collapse of firms like Enron and WorldCom. Researchers and educators have responded with an advanced research into various issues regarding how corporations should be owned and managed. Dennis (2001) iterates that the past twenty-five years have witnessed an ongoing flooding of research into the issue of corporate governance. It is thus believed that the term only became very popular quite recently although it had been coined several years earlier.

The two most popular definitions of CG are those of the OECD and Cadbury Report. According to the OECD, it is the “Procedures and processes according to which an organization is directed and controlled” and the Cadbury Report (1992) defines CG as “The system by which companies are directed and controlled”. In literature, the definition a researcher puts to the term, depends on factors such as the researcher’s cultural orientation, their intellectual background and their interest. Messier, Glover and Prawitt (2008) see corporate governance as a system made up of all the processes, people and activities that are undertaken to ensure accountability over the assets of a firm. Blair (1995) defined the term CG narrowly to cover the structure and function of the Board of Directors of a company. Other researchers define this term as the monitoring of the activities of the managers of an organization by its board members. Abor and Adjasi (2007) define corporate governance as the process that ensures that contributors of capital obtain a return on what has been invested. The return on the investment of these capital investors, however, should not in any way be to the disadvantage of the other stakeholders who although not fund contributors, have diverse interest in the company (Keasey, Thompson & Wright, 1997). Since most contributors of funds in various organization are usually not in the position to manage their funds, they employ people (managers) to do that on their behalf. These managers will not always act to the benefit of the owners of capital, for varied reasons. Ahmed (2013), like many researchers, believes that the company a manager finds himself/herself in should motivate him/her to work hard for the benefit of fund owners, check their behaviour, abuse of power and to cushion investors.

Accounting Information Quality (AIQ) has been seen by Dechow and Schrand (2004) as the extent to which accounting information accurately reflects the current operating performance of a company, and the usefulness of the current figures in predicting the future performance of the firm. In literature, AIQ is sometimes used in the same way as the term Earnings Quality (EQ). Some of the researchers who used these words to mean the same thing include Paulo, Martins and Girao (2014), Ewert and Wagenhofer (2011) who posit that there are several metrics for the measurement of EQ. These measures include persistence, predictability, conservatism, accrual quality, value relevance, timeliness and abnormal accruals. Researchers such as Dechow and Schrand (2004), Giroux (2004) Burgstahler *et al.* (2006) and Dechow, Ge and Schrand (2010) are in sync with the conclusions of Ewert and Wagenhofer (2011). These researchers however believe that the three most important and dominant metrics in the measures of Earnings Quality (EQ) are Earnings Persistence, Accounting Conservatism and Earnings Management Quality. Paulo *et al.* (2014) believe AIQ has two broad dimensions: quantitative and qualitative. The quantitative aspects refer to the above mentioned metrics of AIQ and the qualitative encompasses all the qualitative characteristics of Accounting Information such as relevance and reliability.

Sun, Lan and Liu (2014), Roychowdhury (2006), believe management engage in two types of manipulation of the financial reports. These are the Real EM (which seem to be the less popular between the two) and the Accrual EM (the very common one in literature). There are rules and regulations, including International Accounting Standards (IAS) or the Generally Accepted Accounting Principles (GAAP), that guide the

preparation and the presentation of financial statements for use by shareholders and various stakeholders. The options and the flexibility of these standards given are capitalized on by managers (Ortega & Grant, 2003). Managers engage in various management practices in order to reflect their own desires, and hide the actual financial health of their companies like it happened in the case of Enron. Thus a premeditated intrusion in the external reporting process for their personal gains (Schipper, 1989). CG as a matter of fact should be able to filter through the opportunistic behaviour of managers by improving the quality of their reported earnings. The behaviour of these managers affects the quality of earnings and leaves the reports presented equally doubtful. Shareholders and the other stakeholders rely on the reports produced by managers in making various decisions. McGahan and Potter (1997) found out that corporate performance is largely influenced by the strategy adopted by that organization. A good strategy that is able to detect and correct these behaviours is relevant. No matter how small the effect of the behaviours of the managers on financial reports, they need to be attended to with the highest level of seriousness (Clikeman, 2003).

Studies such as that of La Porte, Lopez- De-Silanes, Shleifer, and Vishney, (1997, 1998) posit that the most important factor for actors of companies to act and behave appropriately lies in the development of a good corporate governance mechanism. However, Roe (2003) and Gourevitch (2003) think this might not wholly be applicable especially in the case of developing economies.

There have been several research conducted with regards to CG issues, primarily because there are various aspects to CG. Hermalin and Weisbach (2001) looked at the board of directors as their main focus in the discussion of the corporate governance issue. Bushman and Smith (2001) looked at corporate governance and financial accounting information. Bradley, Schipani, Sundaram, and Walsh, (2000) and Rajan and Zingales (2000) tackled it with their focus on the changing nature of firms and market. Conyon and He (2011) limited the issues of CG to executive compensation; Holderness (2003) looked at it from the block holders' perspective. Much of the empirical literature recorded on CG and Earnings Quality (EQ) have focused on this relationship, with the developed market in mind. Ebaid (2012) study was one done for an emerging market (Egypt). He found out that one major reason for managers to engage in EM was because the record of losses sent bad signals to investors and potential investors. He used the distribution of reported earnings approach which was also used by Burgstahler and Dichev (1997) and Degeorge, Patel and Zeckhauser (1999).

This study therefore seeks to fill the gap and add to the CG literature by finding out the relationship between CG and AIQ of listed firms in Ghana.

1.2 Research Problem

Despite the significant importance of corporate governance on accounting information quality, it has received less attention in the literature, particularly for developing countries like Ghana. This, coupled with the use of a single measurement in already existing studies

which is likely to present unreliable results since it is inadequate to measure corporate governance with a single measure, creating a policy gap such that policy makers and firm owners do not have adequate information in decisions regarding the significance or otherwise of corporate governance in influencing accounting information quality and the necessary measures needed.

For instance, Hermalin and Weisbach (2001), Bradley *et al.* (2000) and Rajan and Zingales (2000) concentrated their attention solely on various individual governance components such as the board of directors, CEO duality (where the same person served as the Board Chairman and CEO), audit committee size and composition and the extent of institutional ownership among others. This is highly inadequate as one factor of corporate governance cannot be a good representation for all issues of corporate governance.

In a bid to improve the existing methodology, Shiri, Vaghfi and Soltani (2012) in their study of the companies listed on the Tehran Stock Exchange changed the idea of equating CG to a single factor as done in the earlier studies to the study of a few more governance mechanism specifically, composition of the board, institutional investor and CEO role being separate from the chairman or vice chairman. The study however used a cross sectional regression model for the measurement. Again, this cannot be used for effective generalization since one period might be distinct from another.

Akyeampon, Abor and Amidu (2013) conducted a similar study on CG and Earnings Management. This research mitigated the problems associated with conducting a cross

sectional study, with the use of the panel data approach. The use of the panel data approach is in line with what was as proposed by Gruszczynski (2006) as a way of mitigating some of the econometric issues in conducting research. The limitation of this study lies in the limited measures of corporate governance indicators and the number of years covered and the sole concentration on Earnings Management one aspect of Accounting Information Quality.

Thus, given the importance of corporate governance on accounting information quality, this study seeks to improve on earlier methodologies and measurements used to arrive at a significant conclusion that can inform policy makers and investors alike. Specifically, the study investigates the effect of CG on AIQ of the listed firms on the Ghana Stock Exchange. First, this study would increase the number of governance variables as well as the number of years studied. It is believed that a longer period would bring out further details and trends that a shorter period study might have failed to recognize. Secondly, this study, seeks to contribute to the scanty literature on CG and AIQ since most of the studies that have been conducted, usually use just one measure of AIQ.

1.3 Research Objectives

The study examines the relationship between CG variables and AIQ for listed firms in Ghana. Specifically, the study seeks to:

- I. Examine the characteristics of CG and the characteristics of AIQ
- II. Evaluate the effects of CG characteristics on AIQ
- III. Ascertain the effects of ownership structure on AIQ

1.4 Research Questions

The study seeks to answer the following questions;

- I. What are the characteristics of CG and the characteristics of AIQ?
- II. What are the effects of CG characteristics on AIQ?
- III. What are the effects of ownership structure on AIQ?

1.5 Significance of the Study

The significance of this study can be viewed along three strands: research, policy and practice. In terms of research, it would expand the existing knowledge in this area of CG from the global perspective by delving into this issue from the Ghanaian market perspective. It would be a source of reference for this area from the Ghanaian perspective as there seems to be scanty information in this regard. It would also help policy formulators in their decision making process on issues that affect the Ghanaian stock market. Lastly, it would serve as a source of knowledge to students, academia and researchers due to their varied interest in the issues of CG and serve as basis for further studies in the field.

1.6 Scope and Limitations

Although this research seeks to achieve the best out of the data, the following are the limitations of this study.

The varying listing dates of the firms on the stock exchange. This issue however has been mitigated by the use of an unbalanced panel regression method. Secondly, the samples

selected are the non- financial firms listed on the Ghana Stock Exchange. Although this sample was chosen because of the effects financial institutions have on discretionary accruals, it will make effective generalization of firms a bit inconsistent since there are some financial institutions listed on the stock exchange. Also, although there are several measures of AIQ, just three (3) of these measures are being used here. It would have been imperative to use all the measures however, because this thesis is scheduled within a particular time frame, only the three could be used.

1.7 Organization of the Study

The study was organized into six chapters. Chapter one presents the introduction which sets out the background and the motivation for the research. It also gives a brief insight into the significance and scope of the study as well as the organization of the thesis. In chapter two, the researcher presents an overview of corporate governance in Ghana. Chapter three includes an in-depth review of literature on corporate governance and accounting information quality. This helped in the identification of the research gaps this study sought to fill. In chapter four, the methodology and data collection for the study are discussed. The results of the study are discussed in chapter five. Finally, in chapter six, a summary of the study with conclusions and policy recommendations are presented.

1.8 Chapter Summary

This chapter offers the introductory part of the study which discusses corporate governance and accounting information quality. The study then establishes the problem

this research seeks to address by looking at some studies in literature and the gaps seen from those studies. The problem statement is then concluded by identifying how this research would mitigate the identified gaps. It then lays out the objectives of the study and the appropriate research questions asked based on the objectives. The significance and scope and the limitations follow after this. The final part of this chapter shows how the various chapters after this introductory part have been arranged, discussed and analyzed.



CHAPTER TWO

CORPORATE GOVERNANCE IN GHANA

2.1 Introduction

This chapter provides a review of the past developments with regards to Corporate Governance (CG) issues in Ghana. It starts with a discussion on the profile of the Ghana Stock Exchange (GSE), the developmental changes which have occurred, what good governance is and the codes of corporate governance in Ghana.

2.2 Profile of the Ghana Stock Market

A Stock Exchange is an organized and regulated financial market in which securities such as shares, bonds and notes are bought and sold at prices determined by the invisible hands of demand and supply as this helps in the diversification of risks and the mobilization of domestic savings (Miskin, 2001). These stock exchanges serve the purposes of both the primary market where new securities are issued and sold, and the secondary market where already existing securities are displayed and traded in. Thus stock exchanges exist to impose rules on the behaviours of the sellers and the buyers of these securities.

The Ghana Stock Exchange was incorporated in July 1989 as a private company limited by guarantee under Ghana's Companies Code, 1963 (Act 179). The exchange was given recognition as an authorized Stock Exchange under the Stock Exchange Act of 1971 (Act 384) in October 1990, however, actual trading on the floor commenced a month later, in November 1990. The Ghana Stock Exchange was converted into a public company limited by guarantee from a private company limited by guarantee in April 1994. It is

situated in Accra, the Capital City. This Exchange deals in three main securities namely the ordinary shares (common stock), the preference shares and the Exchange Traded Funds (ETF). Trading on the floor of the house is by the Continuous Auction Trading System where orders are executed whenever bids and offers cross during a trading session.

2.3 Overview of Corporate Governance in Ghana

Ghana has a number of regulations that have been enacted in its quest to ensure that firms within the boundaries of the country practice good corporate governance. These include the Security Industry Law 1993, (PNDC 333), listing Regulations 1990 (LI 1509) as amended as the Security Industry Act, 2000 (Act 590). The requirements of these acts are to ensure firms become internationally competitive. Becht, Bolton and Rosell (2002) contend that the worldwide privatization of various economies deregulation and integration of capital markets, led to countries responding to corporate governance issues after the Asian scandals. Ghana responded to this crisis with various programs as it believed could lead to sustainable growth and developments (Kyereboah-Coleman & Biekpe, 2006). In 1999 and 2000, several seminars on issues of corporate governance were hosted by the Ghana Institute of Directors (IoD) in partnership with the Commonwealth Association of Governance. It surveyed Ghana's top 100 corporate organizations and some state-owned enterprises with an aim to examine the prevailing situation with regards to corporate governance issues in both the privately-owned and the state-owned organizations. The report reveal that good corporate governance practice was gaining roots in the operations of corporate organizations in Ghana. Nonetheless, the IoD

recommended some measures, such as the strengthening of existing legal and regulatory frameworks that demand more transparency to back solid and stable corporate governance practice and the clarification of governance roles and responsibilities, for enhancing corporate governance practice in Ghana.

In 1999, the CACG made available some sets of principles to ensure effective corporate governance practices throughout the commonwealth (CACG, 1999). The principle is concerned with: the profitability and efficiency of commonwealth corporate businesses, and their ability to create wealth and employment; the long-term competitiveness of Commonwealth nations in the global market; the stability and credibility of the Commonwealth financial sectors, both nationally and internationally; and the relationship between corporate businesses within an economy and their sustained capacity to partake in the global economy (CACG, 1999).

The Centre for International Private Enterprise (CIPE) held a conference in Accra in 2000 among the issues discussed were those pertaining to the significance of effective corporate governance for sustainable growth in West African economies. This report highlighted the main constraint of corporate governance practice in state-owned enterprises in Ghana. Government interferences in the affairs of these corporate organizations raise a lot of pressing concerns in terms of corporate governance. This kind of interference leads to a rarity of effective corporate governance practice in these corporate organizations. Etukudo (1999) in Agyeman and Castelleni (2013) notes that this rarity of effective corporate governance practice in sub-saharan african economies mostly arises from the unclear

relationship among the state, as the owner of the corporate organizations, the board and senior management. The rarity of good corporate governance in state-owned corporate organizations in Ghana has led to an abysmal performance and failure of these corporate organizations. Lack of institutional and legal reforms that ensure that managers of state-owned corporate organizations are independent in carrying out their day-to-day activities, while strengthening their accountability, resulted in poor performance of these corporate organizations.

2.4 What is Good Governance?

There is no single definition to what good governance is or what it is not. This is because there are several markets with their diverse cultural and economic factors that affect these markets and their participants. Good governance is believed to be dependent on certain ethical values from which accountability, probity, transparency and responsibility stand tall. These ethical values need to be applied to all aspects of the board, from its formation into its level of independence in order for a firm to be seen as exhibiting signs of good corporate governance (CACG, 1999).

Armstrong (2003) believes that the high level of market discipline and the high level of transparency that characterize markets that practice good governance urge them to strive for good governance. Although markets in Africa attempt to achieve this level of good governance, Rossouw (2005) argues that the lack of effective institutional and regulatory frameworks stifles the efforts being made by these countries. Thus good corporate

governance exists in an effectively regulated market which is more attractive to the public companies, but serves as a disincentive to the private firms.

The lack of independence of the board of directors that characterize the various boards on listed firms in Africa because the various governments of the day elects the members, hinders the efforts of the public companies in their quest to attain good corporate governance and also discourages the private companies to be listed. (Rossouw, 2003).

2.5 Codes of Corporate Governance in Ghana

Issues of corporate governance in Ghana is addressed in the Guidelines and Best Practices compiled by the Security and Exchange commission unlike some of the developing and developed economies who have codified laws to deal with corporate governance issues. This although not separately codified, sets out the dos and the don'ts with regards the issue of Corporate Governance in Ghana (Manual on Corporate Governance in Ghana, 2000).

This making it distinct from those countries that either go by the rule based approach popularly linked to the USA system or the principle based approach usually linked to the UK, Ghana's code has traces of both methods although not explicitly stated. The code at one instance specifies that in addressing issues, there is no room for flexibility. The code should be strictly adhered to. At other instances, there is flexibility in addressing the issues of Corporate Governance. Thus, if the rules cannot be strictly followed, there should be reasons explaining the non compliance and means through which it can be achieved.

The code has been sub categorized into five (5) parts. The following areas of importance have been highlighted in the code. Part I looks at the concepts of corporate governance, Part II discusses the implementation of the corporate governance principles, whilst Part III reviews the Ghanaian Regulatory Framework, Part IV looks at the guidelines of best practices of corporate governance. Issues for the future and the concluding remarks of the code are set out in Part IV (Manual on Corporate Governance in Ghana, 200).

Part I- The concept of Corporate Governance

The code of Corporate Governance in Ghana, like that of many developing countries became imperative after the Asian crisis occurrence in 1997. These global crises coupled with the speed of globalization contributed to the adoption of a code by Ghana. The importance of corporate governance issues in the light of the numerous economic failures motivated multilateral agencies to encourage their various governments and organizations they work with to facilitate the various codes

The principles encapsulated in the code are seen as a non-binding one but only an addition of the various codes adopted. These principles are based on issues that result from the separation of ownership from control. Some of these issues are: the right of shareholders, the equitable treatment of shareholders, the role of the stakeholders, disclosure and transparency and the responsibilities of the board.

Part II- Implementation of Corporate Governance Principles

The Securities and Exchange Commission has its mandate of ensuring the growth and the development of the capital market enshrined in the Security Industry Law, 1993 PNDCL (333). It is believed that for the implementation of the Corporate Governance Principles,

there needs to be an existing atmosphere of good governance which involves the state of the regulatory framework and the domestic corporate culture existent in Ghana. This will help to improve the confidence of the investors and also reduce the cost of capital through the induction of more stable source of financing. The Securities and Exchange Commission believes that all listed firms under its jurisdiction must as far as practicable put in measures that will ensure the implementation of the appropriate corporate governance practices in all their operations.

The Commission views the responsibility to implement Corporate Governance Principle as a collective one that lies on the shoulders of all involved in the operation of a corporate body. These groups include the Board of Directors. *The Board of Directors* are the people that are mandated to manage the day to day operations of the firm on behalf of the shareholders who are the owners of the firm. The implementation of good corporate governance centers round the integrity and the competence of the board. The code stipulates that it is the duty of the board of directors of a firm to ensure the monitoring and management of risk, ensure the integrity of the corporations accounting and financial reporting systems, selecting, compensating and replacing key executives and overseeing succession planning. The Board of Directors needs to be independent from management in order to effectively discharge their duties and responsibilities. For this to be achieved, the code requires the majority of the board members to be outsiders who should not be related to the firm either through family ties or economic activities. Thus the code encourages firms to appoint a greater number of directors outside the organization.

The chairman: The chairman is seen as the head of the board that has the responsibility of ensuring the effective functioning of the board. The code advises for the separation of

chairman role from the role of the Chief Executive Officer (CEO). This will also help increase the accountability and the capacity of the independent decision making.

Shareholders and Stakeholders: These are the people who have contributed their capital to fund the business. The code stipulates that these contributors of capital have the right to influence the firm in certain issues including the election of board members, the changes in capital, the amendments to the regulations of the company, the approval of extraordinary transactions and any other issues stated in the Companies Code and any other regulation that binds the firm in question. There are secured methods of ownership instigated to help maintain the rights of the shareholders. These include the receipts of information on a timely and regular basis and the ability of the shareholder to transfer shares when the need be.

Auditors: These are the individuals who express an opinion on whether or not the financial statements of the firm have been prepared in accordance with the required standards. The Securities and Exchange Commission believes the quality of the information depends on the standards under which it has been compiled and disclosed. The code also states that the independence of the Auditors is crucial to the proper governance of the firm.

Part III- Review of the Ghanaian Regulatory Framework

This part of the code analyses how the various regulatory frameworks in Ghana help in achieving the principles of corporate governance. Two of the most prominent regulatory frameworks are the Companies Code 1963 (Act 179) and the Securities Industry Law 1993 (PNDCL 333) as amended.

The Companies code and the Securities Industries provide some basic rights of the shareholders which includes the right to: secure any method of ownership registration, convey or transfer shares, to obtain relevant information, to participate and vote in general shareholder meeting and to elect members to the board. In particular, the Companies Code makes provision for giving opportunities for shareholders to participate and vote in general shareholder meetings, shareholders to be furnished with sufficient and timely information concerning the date, location and agenda of general meetings and the decisions taking during meetings. The Securities Industry Law for example requires the disclosure of equity ownership over and above certain thresholds.

The Regulations referred to above states that all shareholders should be treated in the same way. There should be no discrimination between the foreign and domestic shareholder with regards to their rights as shareholders. Minority shareholders have the right to seek redress under the Companies Code. The Securities Industry Law also frowns upon and penalizes insider trading and abusive self-dealings

Act 179 mandates that annual audited report be laid before the shareholders at general meetings. The Listing Requirements provides the time frame within which annual reports of listed firms must be circulated. It also requires investors to have information that borders on the issues of financial and operating results of the company, the objective of the company, majority share ownership and voting rights, key executives and their remuneration, material foreseeable risk factors and material issues regarding employees and other stakeholders. Directors of firms are mandated by the Companies Code to disclose any material interest in transactions or contracts.

The Responsibilities imposed on the boards of firms are shown in the Companies Code and supported by the Listing Requirements. Firms' board of directors is mandated to establish an audit committee to oversee the affairs of the organization. The Commission postulates that although there are many factors that influence the attainment of good corporate governance, the greater responsibility lies on the board of directors.

Part IV- Guidelines on Best Practices of Corporate Governance

The guideline refers to the write ups that help in the attainment of the goals of the firm. The guidelines for attaining best practices on corporate governance have been enshrined by the code although it has no legal backing. These best practices are based on those developed by the OECD and the Commonwealth Association for Corporate Governance. These guidelines on the best practices are applicable to all corporate bodies and their dealers as licensed under the Securities Industry Law. The principal responsibilities imposed on the board of directors include: management of the interest of their shareholders, abiding by the rules of the industry in which they operate as well as falling within the confines of the law that guide the operations of the firm. The board helps in the attainment of good corporate governance by strategically guiding the firm in keeping to its business objectives, overseeing the management and conducts of business, overseeing of internal controls, the maintenance of the firm's information and communication dissemination policy and ensuring a succession plan for the appointment, training, remuneration and the replacement of top management. The code does not give a particular size of the board needed by firms; however, the effectiveness of the work done should be of major importance. Thus it suggests that a board size of between 8 and 16 members is ideal. In appointing members to serve on the board, the code states the process used

should be transparent and fair. Shareholders must be notified when appointments of new directors are being made: their names, country of residence, age, shareholdings in the firm or in its subsidiaries, their relationship with the firm and any director and any conflict of interest. The code does not frown on the number of board seats a director can occupy however, it only advises that preference should be given to equally qualified outsiders because they can dedicate much more time to effectively doing this work.

CEO duality is another issue of concern addressed by the Commission. It believes the ideal situation is to separate the role of the CEO from the Chairmanship position particularly for the firms listed under its jurisdictions. In as much as this does not seem to be a strict rule, the code states that under no circumstance should these two roles lie in the hands of a single individual. When this occurs there should be justifiable reasons given to the shareholders of the firm and the board should also enact ways and means to ensure their independence as a whole.

The Chairman as the head of the board has the responsibility to ensure the board and its committees and sub-committees are functioning properly. She/he does this by ensuring the regular meetings of the board, (for a listed firm under the jurisdiction of this code, there has to be at least 6 meetings in a year). Here any non-executive director who does not contribute to issues brought before the board is removed or not re-elected or is asked to resign. The Commission imposes a duty on the Chairman to ensure a good composition of the Board. At least one third of the total number of directors should be outside the firm. The Commission also argues that for the independence of the board, under no circumstance should the number of the independent directors be less than two.

As earlier stated, there are various committees that help the board in the discharge of its duties. According to the Securities and Exchange Commission, at the discretion of the board, committees can be formed once it will help it in the discharge of its duties. Some committees that the Commission makes reference to include: the Audit Committee and the Remuneration Committee. According to the code, the Audit Committee should consist of at least three members majority of which should be non executive directors with adequate knowledge on finance, accounting and basic knowledge in law under which the firm is subject to. The head of this committee should also be a non-executive director. For the Remuneration Committee, there must be a substantial number who are outside director and the executive directors who are also members of this committee must absent themselves from the deliberations that border on their own remuneration. It is the duty of the members of this committee to disclose to the shareholders of the firm, the aggregate amount attributable as the benefits in kind, contribution to pension schemes and the like to the office of directors and executives in a particular financial year.

The Board is responsible for the financial affairs of the firm. The accuracy of the information contained therein depends on them. They ensure that whatever opinion that has been expressed by the external auditor is faithfully reproduced to the users of this financial statement.

This Code mandates all firms under its jurisdiction to disclose certain items in the annual reports. This includes: the Chairman's Statement, the Statement of Responsibility for Financial Statement, and the Statement as to the degree of Compliance with Corporate Governance Practices, the Statement as to adequacy of Financial Controls, Statement as to

the degree of Compliance with the Law, Statement as to the Enterprise being a going concern and any other matters to be disclosed.

Part V- Concluding Remarks and Issues for the Future

The Commission affirms that for good Corporate Governance, to be attained by the firms under its jurisdiction, the mechanisms must be adhered to, like the audit committee and the existence of the non-executive directors on the board although they argue that these are only mechanism to achieve that. The Commission believes there is the need to implement practices of good corporate Governance in the securities market of Ghana.

2.6 Chapter Summary

In this chapter, the profile and the mandate of the Ghana stock exchange, the developmental changes which have occurred with regards to CG, what good governance is and the codes of CG in Ghana have been discussed. It has can be seen from this chapter that Ghana has undergone several changes in its quest to practice good corporate governance. The literature reviewed concludes that good corporate governance is achievable only when there is an effective institutional and regulatory framework in place.

CHAPTER THREE

LITERATURE REVIEW

3.1 Introduction

This chapter provides a review of the theoretical literature on corporate governance (CG). It begins with the theoretical principles underlying CG and then discusses the empirical literature on CG variables that affect the Accounting Information Quality (AIQ) of listed firms in Ghana.

3.2 Theories on Corporate Governance

There are several theories from which the term CG is obtained. For the purpose of this study, the Agency, Stakeholder, Stewardship, Resource Dependence, Political Cost and the Information Asymmetry Theories are discussed.

3.2.1 Agency Theory

The agency theory according to literature is the root and the building block of all CG theories. Achim and Borlea (2013) posit that the agency theory is the first theory to be considered once the issues of CG appear in a discussion. According to them, this theory could be traced to the USA in the early 1970s. The agency relationship is one between one party (agent) and another, (the principal), where the agent is hired to act in the interest of the principal (Jensen & Meckling, 1976). This theory has been attributed or linked to the field of economics (Eisenhardt, 1989) where individual families are seen to advance

their individual utilities at the expense of their public shareholders. The agent is to transact business, distribute goods and render services on the principals' behalf. In the discharge of his duties, should he incur some costs, it is the duty of the principal to make good the costs. The agency theory, although variously highlighted in the early 1970s, can be traced to the work of Berle and Means (1932) who posited the need for a separation in the control of Government. Thus the same people responsible for the provision of goods and the rendering of service cannot be the same person responsible for the evaluation of the work done. This they believed is imperative to ensure the citizenry get what is due them and not what the government feel is right.

The theory of the firm, developed by Alchian and Demsetz (1972) also gave an indication of the agency relation, however anytime the agency theory is mentioned, Jensen and Meckling (1976) are given the credit since their work explicitly established the relationship between the agent and the principal by concluding that the amount of care, commitment and attention that people give to the funds contributed by others and in their custody is different from how they behave if these funds were contributed by them. This can lead to a conflict called the Agency Conflict. This conflict however begins from the point where there is the need for separation between the ownership and control.

3.2.2 Stakeholder Theory

The stakeholder theory stems from the agency theory. Friedman (1970) suggests that the stakeholder theory replaces the sole aim of maximizing the value of shareholders to

include the satisfaction of all major stakeholders. A stakeholder is seen as one that has an interest in the affairs of a firm. Investors, suppliers and customers are seen as stakeholders in a typical firm. However, modern literature has defined the term stakeholder to include the government, trade associations and even the community in which a firm is situated (Borlea & Achim, 2013). The problem with an organization with numerous stakeholders is the fact that all these numerous stakeholders want their individual interests to be advanced. However, it has been realized that the stakeholder theory has made firms more efficient not only because it has contributed to their economic success but because it has made them competitively advantaged (European Commission, 2011).

3.2.3 Stewardship Theory

The Stewardship theory which contradicts the agency theory espouses that, corporate executives are stewards of their companies. In view of this, they are expected to choose the interests of their stockholders over their own interests (Sundaramurthy & Lewis, 2003). This means that, the board of directors of firms do not necessarily have to focus on controlling corporate executives but should rather take measures to empower them (Daily, Dalton & Canella, 2003). The foundation of the stewardship theory is related to the works of McGrigor in the 1960's and the Y theory that presupposes that managers are rational and do not require any external monitoring in performing their duties as the agency theory assumes (Nicholson & Kiel, 2012).

In particular, the agent must always act in the interest of the principal who employed them. This is a daunting task for the agent to advance the interest of the principal only since the business environment is not only secluded to the agent and the principal. The needs of the other stakeholders though not fund contributors, have equal share and interest in the affairs of the firm. For tranquility and harmony, and the advancement of the firm, there is the need to put all the interests of these various stakeholders on an achievable level for all.

3.2.4 Resource Dependence Theory

According to Wernerfelt (1984), this theory refers to the duty of the board of directors to make available anything be it strength or weakness that can help in the performance of the duties of the firm. This theory literature believes is based on the on the work of Pfeffer and Salanick (1978) who posit that an organizations aim of appointing a board is because they expect these individuals to support and show concern for the problems of the firm once the needed resources have been provided.

The Resource dependence theory borders on the activities of a firm. It is based on the notion that, firms are open systems and the environment in which they operate and the social relations form the foundation on which they make decisions regarding their resource allocation. Pearce and Robinson (2009) posit that firms operate in an open system. This suggests that these firms one way or the other depend on other industries that provide them with essential services In effect, this theory considers the role managers play in allocating the resources of the firm given their external environment (Hillman, Withers

& Collins, 2009). This theory brings out the basic concept of ‘network’ underlying the corporate governance construct.

3.2.5 Political Theory

Political theory has become a part of corporate governance because firms are bounded by laws. These laws have an impact on the corporate decision making of the firms and affect certain related activities such as the distribution of corporate power, profits and various benefits (Abdoullah & Valentine, 2009). For example, in Ghana firms are guided by the company’s code of 1953 (Act 179) which one way or the other affect the decisions made by the firms.

This theory therefore espouses that firms in different political environment might behave in a different way even if they had the same economic environments. This theory helps to highlight the importance of a stable environment if a firm is to reap its full potentials and benefits. It asserts that a stable political environment is important in the life of a firm. This stability is in terms of a war-free environment as well as laid down policies so that even if governments change, policies and programmes should not change to the detriment of current and potential investors.

3.2.6 Theory of Information Asymmetry

Information asymmetry theory is based on a study by Akerlof (1978). The theory presupposes that, the behaviour of market participants (buyers and sellers) is keenly

determined by the available information. Where there is information asymmetry, there can be a collapse in the market and adverse selection relating to the quality of products on the market (Heikel, 1981).

Information asymmetry is a term which means that in a particular market, all participants are not privy to the same type and amount of information. Therefore, if some participants in the market have information about the market which the rest do not have, they would use it to make decisions that would benefit them, to the detriment of those who do not have the information. The result of an information asymmetric environment is market conflicts. In as much as it is hard to have an environment where all market participants have the same level of information asymmetry should be reduced to the barest minimum.

3.3 Empirical literature

Under this section, literature to be engaged is those on corporate governance characteristics, the relationship between CG characteristics and AIQ and ownership Structure and AIQ.

3.3.1 Corporate Governance Characteristics and Accounting Information Quality

Board Independence and Accounting Information Quality

The independence of the board is defined in literature as the proportion of non-executive directors on the board of a firm. Davidson, Goodwin-Stewart and Kent (2005) and Peasnell, Pope and Young (2005) contend in their studies that for the agency problem in corporate governance issues to be effectively mitigated, the board of directors of firms

should be independent in their monitoring roles. The majority of these board members therefore should have no relations to the board on which they serve. The effectiveness of the board is seen in the level of independence existing in the board and their ability to undertake their roles without suppression from the people who appointed them (Brickley, Coles & Terry, 1994; Bryd & Hickman, 1992). Thus the independence of the board increases its “sight” in dealing with the issues of the firms they work for. Mace (1986) posits that the oversight role of the board is hindered because of their appointment by the CEO more often than not. They therefore tend to do the “bidding” of these CEOs leading to what is termed the managerial “hegemony”.

In viewing the board as a corporate governance mechanism, and using performance adjusted current discretionary accruals as a proxy for earnings quality, Hutchinson, Percy and Erkurtoğlu (2008), Xie, Davidson and Dadalt (2003) and Klein (2002) suggest that when there is a high number of outside directors on the board of a particular firm, they serve as a sort of check and balance, on the behaviour of managers. That is managers will do what is right and not what will benefit them. Thus, the level of earnings quality will be high (managers will not manipulate the financial statements to suit their needs but the reported financial statements will represent the true economic state of the firm). They will not compromise on anything that could dent their hard earned reputation (Fama, 1980; Fama & Jensen, 1983)

Studies such as that of Chen, Cheng and Wang (2014) and Shukeri, Shin and Shaari, (2012) posit that level of the independence of the board that govern a firm, is able to check the manipulations that occur in financial statements. Other studies that recorded a negative relationship between the independence of the board and the manipulation in the financial statement include that of Beasley (1997) and Shamsul (1999) who both defined the board independence by the number of outside directors on the board. These researchers concluded that the incidence of fraudulent financial statement reporting is reduced by the presence of outside directors. A similar study to these is that of Peasnell, Pope and Young (2000) of the firms in the UK believe the availability of Non executive directors is good in constraining the manipulations of discretionary accruals.

Abdullah and Nasir (2004) study of the effects of independent audit committee and independent board on the level of earnings management of 350 firms in Malaysia conclude that there is no significant relationship between the board independence and the level of earnings management. This was attributed to the nature of the Malaysian firms being closely held family firms.

However, studies as that of MacAvoy *et al.* (1983) showed no significant difference in terms of performance between firms with dominated outside directors and those without any. Kosnik (1987) and Fosberg (1989) failed to find any evidence on the role of firms dominated by outside directors.

Board Size and Accounting Information Quality

Although it is acceptable and often preferred for a higher number of directors to be independent, it is not clear whether the size of the board is able to impact the choices made by managers on the financial reports that are issued. Extant literature has recorded different relationship and attributes on the nature of the size of the board of directors and its relationship with the quality of earnings.

Jensen (1993) contends that the larger the size of the board the more dispersed it is. This makes it difficult to be monitored by the CEO. The board itself is less effective in its duties of checking the activities of the managers. The performance of its role leaves much to be desired since there is lack of coordination and effective communication with these large boards. Large boards are sometimes also seen as weak boards. A weak board according to Vafeas (2000) is the type of board which is not effective in checking the behaviour of managers. That is the managers make decisions to advance their personal interest and not for the benefits of the principals whose interest they seek to safeguard. He believes the smaller the size of the board, the better the quality and the flow of information. There would be the possibility of effective communication and control of the activities of the managers.

Other researchers that agreed to the findings of Vafeas (2000) include Beasley (1996), Ahmed, Hossain and Adams (2006). These writers believe that the smaller the size of the board, the better the quality of earnings. Yermack (1996) like the researchers listed above demonstrates that smaller boards are effective in improving firm performance since he

also believes there is the presence of effective communication and coordination of the work of these boards.

Ahmed *et al.* (2006) found a consistent trend with his study of firms on the New Zealand capital market. In his analysis, he found out that there is a negative relationship between the board size and earnings (earnings informativeness).

Klein (2002) digresses from the arguments made by the researchers stated above and posits that the larger the size of the board, the better it is for the quality of the earnings reported. He extends his argument from the fact that the selection criteria for inclusion on a board, and the integrity of firms are a key factor that influences the choosing of competent people with useful expertise. So the larger the number, the better the knowledge base and expertise represented. He also believes it would be in the best interest of the firm since there would be the greater likelihood of having a lot of independent directors that can fight against the domineering effects of having a powerful CEO. He sees a negative relationship between the variables at stake.

Large board size seen as detrimental to the earnings recorded by firms should motivate them to opt for smaller board sizes since these small boards contribute better to the performance of the firm. The larger the board size, the lower the firms performance. Mintzberg (1983), Baysinger and Butler (1985) and Kosnik (1990) posit that the size of the board and the level of diligence to be exercised are related. Yet still, other such as Chtourou, Bedard and Courteau (2001), Xie *et al.* (2003) and Peasnell *et al.* (2005) found

no relationship between the two factors in their various research. In particular, Xie *et al.* (2003) find that larger boards are associated with lower earnings quality, when discretionary accrual is used as a proxy.

Other researchers that could not see any relationship between the two variables include Karamanou and Vafeas (2005) who although agree that the larger the size of the board, the more the knowledge base of the board is enhanced. However, the increased numbers leads to less flexibility and inefficiencies in the discharge of their duties. Their evidence shows that board size has no relationship with the accuracy of management earnings forecast. Similarly, Bedard, Coulombe and Courteau (2008) find that board of director characteristics such as board size, board independence and CEO duality are not significantly related to the credibility of management earnings forecasts. That is board size has often been identified as a significant determinant of earnings management quality but the direction of its impact and relationship remains unresolved.

Board Diversity and Accounting Information Quality

A woman holding managerial position is not a new concept. It dates far back as in the seventeenth century where women were made to manage the farms of their households (Miles, 1988). The women in corporate board positions in public companies in Australia is only 3 percent of the total number seen for a survey conducted in 2000 (Sheridan, 2001). Corbett (1997) study on corporate firms in New Zealand posit that, some firms in the country were subjected to shareholder scrutiny due to the absence of any female on the board of directors. There is therefore the need to add this as an independent variable (that is as a governance mechanism).

Literature has delved into the need for the advancement of women on corporate boards. Some of these studies that have been carried out were done in the U.S.A. They include (Board of Directors Network, 2003; The Boston Club, 2003; The Chicago Network, 2003; The Forum of Executive Women, 2003). Other studies compare characteristics of men and women directors (Burgess & Tharenou, 2002; Catalyst, 2003), report factors affecting the advancement of women to the director level (Burgess & Theranou, 2000; Holton, 2000; Kaplan-Leiserson, 2003; Vinnecombe *et al.*, 2000), examine the value of women on boards (Daily & Dalton, 2003), and report change efforts (Juntunen, 2004; McGregor, 2000). Despite these studies, Adam and Flynn (2005) posit that, the work of researchers, in this field, seem to be taking a slow pace.

A study by Gavious, Segev and Yosef (2012) on high technology Israeli firms listed on the NYSE, evidenced a negative relationship between the presence of a female board member and earnings management which implies a high level of AIQ. They also posit that, in firms that have higher female representation on the board, external auditor presence and influence is low yet earnings quality is high. This they attribute to the attitudes of female by their nature, to do the right thing. Some studies believe, there is a positive relationship between the presence of a female directors and the functioning and the efficiency of the board in general (Adams & Ferreira, 2009; Rogriguez-Dominguez, Garcia-Sanchez & Gallego-Alvarez, 2012).

Concurring with the study of the high Israeli technology firms above, record kept in literature on the relationship between the level of earnings management and gender, on the gender of executive managers. It has been shown that the more the number of women

making up the executive managers of the firm, the higher the quality of the reported earnings (Krishman & Parsons, 2008).

Peni and Vahamaa (2010) in their research found a relationship between the level of the quality of financial reporting and the gender (in terms of conservatism, risk averseness and the ethical behaviour) of a firm's executive, specifically the CEO or the CFO. In this paper, they examined the association between earnings management and the gender of the firm's executives. They found out from their 1,955 firm-year observation that a firm that has a female CFO or CEO is associated with income decreasing discretionary accruals (lower likelihood) of the manipulations of the financial statements. This also implies those females are usually more conservative than their male counterparts.

Audit Committee Independence and Accounting Information Quality

The Audit committee (AC) is set up to help the board of directors with the discharge of the duties that concern the financial and accounting matters of the firm. These duties, also involve both the internal and external audit roles of the firm. Klein (2002) defines the Audit Committee as an important institution that oversees the transparency and integrity of the financial reporting process. Section 202 of Sarbanes Oxley defines the audit committee as a "committee (or equivalent body) established by and amongst the board of directors of an issuer for the purpose of overseeing the accounting and financial reporting processes of the issuer and audits of the financial statements of the issuer". This section does mandate firms to have an audit committee. This Acts gives two basic requirements regarding the composition of the audit committee. These are the independence of the committee and the involvement of a financial expert in the committee. The independence

is based on the notion that independent directors are more objective in their analysis of financial statements.

The role of the AC in the discharge of their duties with regards to financial reporting has been emphasized by the studies of (Wild, 1994; McMullen, 1992). McMullen (1992) believes that the illegal acts, irregularities and the incidence of errors that characterize the process of financial statement reporting, is negatively related to firms with a percentage of AC members being outsiders. Wild (1996) says the essence and existence of the audit committee is to ensure a high quality of earnings and financial reporting.

Carcello, Neal, Palmrose and Scholz (2011) suggest that the effectiveness of the AC can be seen from its make-up (that is it being independent or not). The Cadbury Report makes a similar assertion by stating categorically that an AC should be made up of at least 3 independent directors. This is iterated by the study of Klein (2002) who concludes that for the AC to be an effective overseer, the committee by its make-up, should be independent. Nguyen and Nielsen (2010) concur with the studies above which posit that for the independent board members one should be the head of the audit committee such people are usually high ranking professionals who have their integrity to protect. They therefore would not want to act in a way that would mar their hard earned reputation.

Siagian and Tresnaningsih (2011) in their research sought to find out firms listed on the Jakarta Stock exchange that adhered to the dictates of the exchange requirements of the exchange, to have at least three members being independent directors, as well as the chair

of the committee being independent. He used two different measures for earnings management, that is the total discretionary accruals (DA) and earnings response coefficient (ERC). Both proxies seem to give consistent results. It was observed that, on the Indonesian stock exchange, when all the requirements for the constitution of an independent audit committee are met, (minimum of three members with one independent director as the chair of the audit committee), there is a significant lower record of earnings management.

Bliss, Gul and Majid (2011) study on the role of an independent AC in politically connected firms noticed that for the 500 Malaysian firms used as their sample of study, this relationship though present, seem weaker for politically connected public firms than those that had no political connections. Following from the above, other empirical studies that have showed a relationship between the audit committee independence and its relationship with a measure of AIQ (earnings quality) include Abbott *et al.* (2002), Klein (2002), Xie *et al.* (2003), Bedard, Chtourou and Courteau (2004), Baxter and Cotter (2009) and Carcello *et al.* (2000) who concluded in all these studies that this relationship seems very strong especially when the independent audit committee has financial experts on the committee. For Klein (2002) and Bedard *et al.* (2004), they documented a negative relationship between AC independence and earnings management. They suggest that firms who have more outside directors making up the committee had significantly smaller abnormal or discretionary accruals. That is, they believe as more independent members are on the AC, the better it is since it serves as a check on the opportunistic behaviour of management. The relationship between the AC independence and Earnings Quality has

also been examined by Kamarudin, Wan Ismail and Samsuddin (2012) who used the cross sectional estimation of accruals quality developed by McNichols (2002). They concluded on their research which sampled non financial institutions listed on a Malaysian Stock Exchange in like manner as earlier researchers that the quality of earnings is enhanced when there is an independent audit committee in a firm. They also realized that although the position of a CEO who is the same person as the chairman of the firm has no direct influence on the level of accrual quality recorded by a firm, this CEO duality arrangement is able to weaken and distort the relationship between AC independence and the quality of earnings.

In Asia, Jaggi and Leung (2007) study of 523 firm-year observation and the use of a 3 stage least square regression which controlled for corporate board size, the inherent characteristics of EM and the establishment of a voluntary AC. They concluded that AC is effective in constraining EM when no member of the AC has family ties with the owners of the firm. And the reverse was seen also as true. Thus the AC is rendered ineffective and their independence down played by the board members who have strong family ties. They tend to do their bidding in order to stand a chance of a re-election unto the board.

CEO Duality and Accounting Information Quality

CEO duality refers to a situation, where the CEO acts also as the chairman of the same company with its attended problems of power lying in the same hands. Certain countries have explicitly coded the separation of power within companies. One of such codes is that of Malaysia which recommends the separation of power between the role of the CEO and

the chairman. The separation of power is aimed at making the chairman act as a check and balance on management behaviour. The Cadbury Report recommends that all listed companies should have no role duality to ensure a balance of power and authority leading to more independent boards (Goh, Lee, Ng & Ow Yong, 2014).

Research has documented a mixed result on the relationship between the CEO duality and earnings quality. Whilst Xie *et al.* (2003), Davidson *et al.* (2005) and Abdul Rahman and Haneem Mohammed Ali (2006) in their various studies failed to find any relationship between the two variables, a study done by Abdul Rahman and Haniffa (2005) reveals significant evidence of the relationship between them.

CEO duality is seen to disrupt the separation of control from ownership therefore impeding the work of the board in terms of their monitoring capacity (Jensen, 1993; Fama and Jensen, 1983). Iyengar and Zampelli (2009) examine the issue of duality and firm performance from an endogenous theory of governance. They conclude that firm's selection of the dual governance structure is not consistent with either comparative advantage or the objective of maximizing firm performance. While the studies above and other researchers feel CEO duality has negative repercussions for any firm, Stoeberl and Sherony (1985) contend that if the CEO is the same person as the chairman of a firm, there is greater stability and better communication. The risk of delay in decision making is removed. Brickley, Coles and Jarrell (1997) iterate the study above and assert that a firm that separates the role of the CEO and the chairmanship into different individuals is characterized by higher information and agency costs.

3.3.2 Ownership and Accounting Information Quality

The people that own a firm is seen as the ownership structure. The issue of who owns a firm is very important especially in the discussion of issues on corporate governance. This is so because they affect the behaviour of managers and the long term efficiency of the firm. Ownership structure encompasses how equity in a firm is distributed, in terms of votes and capital. The owners of a firm whether a family, an institution, management, a government and the like has corporate effects on the success of that firm. Thus the image of the owners is portrayed and linked up to the firm. The more visible and successful the owners are, the greater the probability that this success would be connected to the firm.

Ownership structure according to Gonzalez and Garcia-Meca (2014), is an internal control mechanism in as long as it is defined as the manner in which the rights of representation for the redistribution of the capital of the company in the hands of individuals or even other firms. That is the extent to which monitoring power is vested in the hands of individuals determined the level of control they would be able to exercise over the management of the firm.

Literature has seen researchers group the ownership structures based on several factors. La Porta *et al.* (1999) grouped the ownership into a family owned, state owned, corporation owned (institutional ownership) and that which is widely held. Recent researchers such as Mathiesen (2002), Kalmi (2003) and Heubischl (2006) adopted the classification of La Porta *et al.* (1999).

Family Ownership

Burkart, Panunzi and Shleifer (2003) contend that most of the businesses scattered around the world are mainly family owned. That is these firms are owned by a particular family who also usually control the activities of the firm. In the USA, amongst the Standard and Poor (S&P) companies as well as the Fortune 500 companies, about one third of these companies have founding families who are involved actively in the business of the firm.

Although literature documents that for a firm to issue quality financial statements, there is the need for an effective and an efficient corporate governance mechanism in place. Others also believe if the stakeholders of a firm must ensure that financial statements be presented are of high standards. Research has documented studies done on the differences and the effects of family and nonfamily ownership on the quality of earnings. Examples of these studies include Jiraporn, Davidson, Dadalt and Ning (2009), Zhao and Millet-Reyes (2007) and Wang (2006).

However, Wang (2006) posit in their study of firms on Standard & Poor 500 companies for the level of accounting information quality. The components of AIQ in their study include earnings quality, earnings informativeness and earnings persistence. Their study concluded that there is a high level of the quality of earnings when a firm is seen as dominantly owned by a family. The researcher believes the negative entrenchment effects (a situation where management uses their position in a firm to advance their own needs rather than attend to the needs of the shareholders) and the alignment effect (family value

is almost equivalent to the firm value thus they would not take undue advantage and manipulate earnings) is not enough to affect the quality of reported earnings. The study in line with earlier studies, postulate that founding family ownership is associated greater earnings informativeness and less persistence of transitory loss components in earnings.

Another study by Cascino, Pugliese, Mussolino and Sansone (2010) on the relationship between a family owned companies cum their non family owned counterparts and the AIQ of the firms listed on the Italian stock exchange. This study sought to distinguish itself from previous studies that dwelt on the ownership concentration. They observed that in comparing family firms and nonfamily owned firms, there is a high level of earnings quality in the family firms unlike the nonfamily firms. They also found out that the factors that contributed to the quality of AIQ in the family owned firms were different from those that affected the non family owned firms.

Institutional Ownership

Literature posits that the reasons for individuals trading in any market are distinct from the motives of institutions trading on that same market. Barber, Lee, Liu and Odean (2009), Barber and Odean (2008: 2000) and Odean (1999) posit from their studies that whilst individuals' trade generally due to reasons unrelated to information, the institutional ones do the opposite. Thus this attitude of the individuals render them unsophisticated and unwilling to probe into the behaviours of managers, unlike the institutional investors who are both the price determiners in the capital market and highly sophisticated (Sias, Starks & Titman, 2006)

Even with the numerous institutional investors a company might have, Chen, Xia and Li (2007) and Gaspar, Massa and Matos (2005) contend that it is only those that have concentrated shareholdings and independence from the management that can effectively monitor the earnings behaviour and patterns of the managers.

Lefort (2005) iterates the conclusions of the research stated above but according to them, institutional investors or owners would only be able to perform their roles of ensuring sound corporate governance if the necessary conditions that would help them perform their roles are effectively in place. Iglesias (2000) believes countries such as Chile, Argentina, Mexico and Peru have seen their institutional investors serving as a check on the opportunistic behaviours of managers by protecting the interest of the minority owners. This has been possible due to reforms the country has undergone. Thus the conclusion from their studies that higher institutional ownership would lead to a positive corporate behaviour since managers would be discouraged from engaging in any opportunistic behaviours.

Del Guercio and Hawkins (1999) and Hartzell (2003) looked at ownership with regards to institution and also concluded in their various studies that the policing nature of the institutional investors, who have the hard earned reputation at stake, make it very difficult for managers to carry out their opportunistic behaviours when there is a presence of an institutional investor. Thus the likelihood of managers to engage in EM practices is low when a greater part of firms is owned by a large institution or even several institutions. That is institutional ownership is associated with lower discretionary accruals

Managerial Ownership and Accounting Information Quality

The separation of ownership from control, leading to the creation of the agency problem is a known concept in literature. The goal of the maximization of the wealth of the shareholders becomes secondary to the advancement of the needs of these managers at the expense of the owners (Jensen & Meckling, 1976). This opportunistic behaviour of these managers changes when they own a proportion of their wealth in the form of shares or even when their personal wealth directly depends on the decisions taken.

According to Warfield *et al.* (1995) the opportunistic behaviours of the managers of firms can be controlled with a level of inside ownership thereby concluding that there is a negative relationship between the inside ownership and earnings management. Although they agree to the fact that excessive inside ownership would completely digress from the purpose of the establishment of the firm which is profit maximization, these managers could take decisions to reflect their personal reasons (Yermack, 1997)

The studies of Aboody and Kaznik (2000) and Machuga and Teitel (2009) concluded in a similar manner like the earlier research, although it sampled Mexican firms. Their study posits that firms with managerial owners show greater earnings quality compared to those without managerial owners, therefore extending the argument that managerial ownership constraints the opportunistic behaviour of managers.

Foreign Ownership and Accounting Information Quality

The globalization of the world has led to foreigners owning shares in other countries other than their own country of origin. Because this situation is very common in the various

markets, earlier studies including that of Leuz , Lins and Warnock (2007), Mangena and Tauringana (2007) and Aggarwal and Kyaw (2010) have related a high level of firm profitability and performance to firms with foreign ownership.

Foreign ownership is measured by a more than 50 percent of the equity shares of a firm. Studies that have looked into the relationship between CG and AIQ includes the that of Xu, Wang and Anandarajan (2012) who contend that for their 1438 sampled firms in China, firms with foreign owners recorded a higher level of AIQ. This they attribute to the fact that managers are discouraged from managing the earnings of firms when it has a high level of foreign ownership. On the part of the foreign owners, because they do not want to be seen as flouting the rules and regulations of the environment in which they have invested, they usually would want to do the right thing.

With a sample of Japanese firms, Jiang and Kim (2004) conclude their studies that when the foreign share ownership of firms increase for the firms in Japan, they tend to prefer larger firms since it is believed that they perform better with regards to their AIQ. Also, Lin and Shiu (2003) augment the studies above and conclude their studies of the firms listed on the Taiwan market for a period of five years. According to them, when a firm's foreign share ownership increases, it results in the managers preferring firms with a larger size since they are internationally known and might be effectively regulated in doing the right things.

Unlike the studies above, Abraham (2013) sampled banks in Saudi Arabia and conclude from their comparative studies of foreign owned and domestic banks that with every increase in the foreign ownership of banks, firm performance worsens. This they attribute

to the ineffectiveness and the inability of these banks to translate their aggressive nature in terms of their loan portfolio and their capital structure.

3.3.3 Control Variables and Accounting Information Quality

The big four audit firms in other jurisdictions seen as the big six audit firms are the internationally recognized audit firms that act as the external auditors in most firms be it in a developed or an emerging market. A study by Chtourou, Bedard and Courteau (2001) posit that these audit firms due to their international affiliation and reputational background, tend to reject the manipulations by the managements of the firms they audit. This they attribute to the strict regulations imposed on them by their governing bodies. They conclude that even if these audit firms might manipulate the earnings, they tend to be associated with a decreasing earnings manipulation as opposed to an increasing earnings manipulation. They also hypothesize that client of their sampled non big six audit firms report discretionary accruals that ranges between 1.5 and 2.1 percent of the total asset, higher than their big six counterparts.

The firm size of a firm is an important control variable as the researcher believes has an effect on the level of discretionary accruals recorded by the firms listed on the Ghana stock exchange. In the studies of Jiang and Kim (2004) and Lin and Shiu (2003), of in the Japanese and Taiwan markets, they conclude that the firm size is an indicator for foreigners to invest in these markets. According to them, when the firm size is large that is a firm with higher total assets, current and potential investors believe this would subject the firm to public scrutiny. This would result in a lower probability that managers would

manipulate the earnings of the firm. These researchers believe larger firm size means higher levels of AIQ.

3.4 Chapter Summary

Relevant literature on corporate governance and its relationship with accounting information quality has been discussed in this chapter. The literature used has been sorted out into theoretical and empirical literature. Some of the theories that have been reviewed in this chapter include the agency, stewardship, stakeholder, resource dependency theory, political and information asymmetry theory.

From the empirical literature, it can be seen that there is a positive relationship between board independence and accounting information quality. Also, there seems to be a negative relationship between board size and accounting information quality. When there are more women represented on a board literature believe the better it is for a better accounting information quality. Thus there is a positive relationship between the number of women on the board and accounting information quality. Lastly in this chapter, it was seen that there exists a relationship between the ownership structure of the firm and AIQ.

CHAPTER FOUR

METHODOLOGY

4.1 Introduction

This chapter looks at how the relationship between Corporate Governance and Accounting Information Quality has been established. It specifically discusses where the data used was obtained, the population and sample used in the study and the research design adopted. Further, the chapter presents how the model for the study was developed, how the various variables used were measured and the estimation strategy that was employed.

4.2 Data Source

In answering the three research questions, secondary source data was sought. Specifically, the annual reports of the various firms for the relevant years were engaged. The annual reports provided the necessary corporate information on the firms and helped in the sorting out of the corporate governance variables such as the board size, the board independence, board diversity, audit committee independence as well as CEO duality.

The financial statements in the annual reports also provided a good measure for the control variables and the calculation of the accounting information quality measure. The ownership variables were also looked at from the notes of the financial statements. The information provided for in the annual reports were used and relied on. Thus generalization and inferences can be drawn from them. This is based on the principle that

the reports herein are audited by external auditors who care about their reputation, and are approved by shareholders. The Ghana Stock Exchange (GSE) served as the repository where the annual reports were obtained. However, the annual reports of some firms were not available, which was attributed to the refusal of the firms listed to furnish the Exchange with the annual reports year-on-year although these firms were aware that it was mandatory for them to.

4.3 Population and Sample

The firms listed on the Ghana Stock Exchange (GSE) were the population of the study with a sample of twenty non-financial firms. The sample excluded all financial institutions due to the effects they have on the calculation of discretionary accruals. The study period covers an eleven-year period from 2003 to 2013.

4.4 Research Design

The study used a quantitative research design. Quantitative design was seen as the most appropriate design to use as the study examined the relationship among variables through a statistical procedure (Creswell, 2009). Unlike, qualitative research, quantitative design allow for objective assessment of samples for generalization. The study employed a panel or a longitudinal study as the sample members were observed overtime, unlike the pure cross-sectional and time series where different variables are observed over just one year, and just one firm over several years respectively. Unlike, cross-sectional data, panel data

research allow the control of certain unobserved characteristics and can better aid in causal inferences (Wooldridge, 2013).

4.5 Model Development

To test the relationship between Corporate Governance and Accounting Information Quality, some panel models were tested. The general model can be expressed as:

$$AIQ_{it} = \alpha + \beta_1 X_{it} + \beta_2 V_{it} + \varepsilon_{it} \quad (1)$$

Where AIQ is a measure of Accounting Information Quality of a firm i at time t . X_{it} is a set of corporate governance variables and V_{it} represents a set of control variables described under variable measurement.

4.6 Variable Measurement

4.6.1 Accounting Information Quality Variables

Accounting Information Quality was measured as Earning Persistence, Accounting Conservatism and Earnings Management. However, Earnings management was used as the proxy.

Earnings Persistence (EP)

This attribute of AIQ became very important according to the study of Dechow and Schrand (2004) after the failed scandal involving the Houston Energy Giants Enron. The

effective presentations of the health of a firm should be seen by current figures although the reverse happened in the case of Enron.

Persistence measures the degree of current figures recur in the future. The ability of current figures to persist in the future time is an indication of a stable environment, usually desirable to investors and potential investors. In identifying the persistent nature of earnings, to that of cash flow, there is the need to differentiate between these two variables. The major difference between these two concepts that have been variously documented in literature is the presence of the accrual adjustments in earnings. Thus

$$\text{Earnings} = \text{Cash flow} + \text{Accrual Adjustments}$$

An item of Cash flow or earnings is said to be persistent if current cash flow can be predicted effectively from previous ones. The persistence of Earnings and that of Cash flow were computed and compared. The model used by Dechow and Schrand (2004), was adopted, by regressing the current values on the previous year values.

$$X_{it} = \alpha + \beta X_{it-1} + \varepsilon_{it} \quad (2)$$

$$CF_{it} = \alpha + \beta CF_{it-1} + \varepsilon_{it} \quad (3)$$

Where X_{it} stands for operational earnings and X_{it-1} stands for the lag of operational earnings. CF_{it} stands for operational cash flows and CF_{it-1} stands for the lag of operational cash flows.

Accounting Conservatism

Accounting conservatism has been seen by Basu (1997) and Ball and Shivakumar (2005) as the prejudice in the official recognition of bad news more quickly than good news. Basu (1997) defines accounting conservatism as the earnings that always reflect bad news faster than good news. This he believes leads to some sort of difference in the earnings reported in times of bad news and that reported in times of good news. According to Basu (1997) accounting conservatism to the best of his knowledge, can be used to mean the timeliness in the presentation of accounting information. However, the Financial Accounting Standards Board (FASB) in the Statement of Financial Accounting Concept Number Two sees it as the provision of information to stakeholders before they lose their value and importance in helping to make economic decisions. In the conclusion of Basu (1997), it was observed that his use of the term timeliness in accounting information was in respect to the concurrent and future decisions of investors. In this study, the econometric model proposed by Ball and Shivakumar (2005) based on Basu (1997) piecewise-linear regression was used in the calculation of the Accounting Conservatism of the firms:

$$\Delta NI_{it} = \alpha_0 + \alpha_1 D\Delta NI_{it-1} + \alpha_2 \Delta NI_{it-1} + \alpha_3 (D\Delta NI_{it-1} \times \Delta NI_{it-1}) + \varepsilon_{it} \quad (4)$$

Where ΔNI_{it} (Change in net income) is measured by a change in a firm's income between the current (t) and previous year ($t-1$). $D\Delta NI_{it-1}$ (Dummy net income) is a dummy variable with a value of 1 if the previous year's change in income was negative and 0 otherwise. ΔNI_{it-1} (Lag of net income) is the change in income between the previous year ($t-1$) and last two years ($t-2$). $D\Delta NI_{it-1} \times \Delta NI_{it-1}$ is the interaction of dummy net income

with lag net income. It must be noted that all variables are scaled by the total assets at start of the accounting period.

Earnings Management Quality

Earnings management refers to the discretion managers have in the making of choices on accounting policies and real actions that have effects on earnings in order to achieve certain stated objectives. Earnings management is analyzed from the calculation of discretionary accruals. Paulo (2007) argues that there are several models for this calculation. These include the Jones model, the Modified Jones, the forward looking Jones model and the Pae (2005) model.

In this study, Pae (2005) model was used in the analysis of the discretionary accrual. In consistence with the study of Paulo *et al.* (2014), this model is chosen even over the popular Modified Jones Model because the Pae model avoids the measurement error and interpretation difficulties due to omitted correlated variables and thus improves the explanatory power of the Jones model (Pae, 2005). Discretionary accrual (DA) is defined as the difference between Total Accrual (TA) and Non-Discretionary Accruals (NDA). i.e:

$$DA_{it} = TA_{it} - NDA_{it} \quad (5)$$

Total Accruals, as defined in Equation (5) is computed using Equation (6) as follows:

$$TA_{it} = (\Delta CA_{it} - \Delta Cash_{it}) - (\Delta CL_{it} - \Delta CD_{it}) - DEP_{it} \quad (6)$$

Where TA_{it} is the total accrual of firm i in year t . ΔCA_{it} is the change in current assets whereas $\Delta Cash_{it}$ measures the change in cash and cash equivalents. On the other hand, ΔCL_{it} captures the change in current liabilities. Also, ΔCD_{it} is the change in debt in current liabilities. Finally, DEP_{it} measures the depreciation and amortization expense of a firm.

$$\frac{TA_{it}}{A_{it-1}} = \alpha \left(\frac{1}{A_{it-1}} \right) + \beta_1 \left(\frac{\Delta REV_{it}}{A_{it-1}} \right) + \beta_2 \left(\frac{PPE_{it}}{A_{it-1}} \right) + \beta_3 \left(\frac{CFO_{it}}{A_{it-1}} \right) + \beta_4 \left(\frac{CFO_{it-1}}{A_{it-1}} \right) + \beta_5 \left(\frac{TA_{it-1}}{A_{it-1}} \right) + \varepsilon_{it} \quad (7)$$

Where from equation 7 above, A_{it-1} is the beginning balance total asset, ΔREV_{it} is the change in revenue, PPE_{it} is the gross property, plant and equipment. CFO_{it} denotes the current cash flow. CFO_{it-1} is the lagged cash flow and TA_{it-1} is the lagged total accrual. This is also referred to as the Jones model with cash flow and lagged accruals.

Equation (6) however is not a regression model. The value of Equation (6) is then regressed in the Equation (7). The fitted model is the Non-discretionary accruals (NDA_{it}) component of Equation (5).

The result from the calculation of the Discretionary Accrual was then used as a proxy for Accounting Information Quality since it is expected that all the three matrices stated early on should give the same results. Thus, the dependent variable in equation 1 is represented by Discretionary Accrual.

4.6.2 Corporate Governance Variables

The corporate governance variables for the study include board independence, board size, board diversity, CEO duality and audit committee independence,

Board Independence was calculated by dividing the number of non-executive directors by the total number of board members (Geraldes Alves, 2011). The researcher expects a negative sign between the board independence of a firm and AIQ concurring with the studies of Hutchinson *et al.* (2008), Xie, *et al.* (2003) and Klein (2002). Thus the higher the number of non-executive directors, the greater the quality of the accounting information.

Board Size was measured as the number of directors in the firm. This is consistent with the study of Kumar and Singh (2011). For the purpose of this research, the squared of the board size was used. The researcher anticipates a positive sign between discretionary accruals and the size of the board consistent with Jensen (1993) and Vafeas (2000). Since the researcher believes the effectiveness in running a firm is tied to the number of individuals that make up the board. The smaller the number of board members, the better it is in the communication and the coordination of the firms' activities.

Board Diversity was measured as the proportion of the number of the women on the board, to the total number of board members. Literature believes the conservative nature of women and their quest to ensure that the right things are done makes the inclusion of this variable imperative. Thus the researcher anticipated a negative relationship between

board diversity and discretionary accruals. The more women there are on a board, the lower the tendency of managers in manipulating the earnings of the firm.

CEO Duality this is a dummy variable (binary) which is 1 if the CEO doubles as the chairman, and 0 if otherwise. The researcher expects a positive relationship between CEO duality and discretionary accruals hence leading to a lower quality of accounting information.

The Audit Committee Independence was calculated by the proportion of the number of independent non-executive directors on the committee to the total number (Nelson and Devi, 2013). The researcher expects a negative sign between the audit committee independence and discretionary accrual, since it is believed that the more independent the Audit Committee's make up is the more effective it is in discharging its oversight role.

4.6.3 Ownership Variables

Family ownership is defined by a majority ownership (more than 50 percent) held by a family or a family group. This definition is consistent with that given by Chua *et al.* (1999) and Abor and Biekpe (2007). It is expected that the higher the ownership of a firm in the hands of a family, the higher the level of Accounting Information Quality. This is attributable to the fact that managers may not manipulate the earnings of the firm since they perceive the family owners as very powerful. Doing anything contrary to what the owners require might amount to losing their positions as managers of these firms (Cascino

et al., 2010). However, family concentration would cause the family owners to be too powerful that they tend to sabotage the other minority shareholders. Therefore this researcher expects that there exists a positive relationship between family ownership and discretionary accruals.

Managerial ownership measured by the proportion of the firm's shares owned directly or indirectly by management. It is believed that the more managers own shares in the company, the lower the tendency of managers manipulating the earnings of the firm, since any such move would affect their own shareholdings as well. Therefore this researcher expects a negative relationship between managerial ownership and discretionary accruals.

Institutional Ownership is defined as the percentage of institutional shareholdings relative to the total number of shares in the company according to Chen, Lu and Sougiannis (2012). It is expected that the greater the number of institutions that own shares in the firm, the higher the level of the Accounting Information Quality, and the lower the discretionary accruals. This is because institutions that own shares in firms have their integrity to protect thus ensuring that the right thing is done to avoid reputational issues. Therefore it was anticipated that there exists a negative relationship between institutional ownership and discretionary accrual

Foreign Ownership is a dummy, seen as 1 if the firm has more than fifty percent of its equity shares in the hands of foreigner, and zero if otherwise. This definition is consistent with literature in the study of Jiang and Kim (2004) establishes a negative relationship

between foreign ownership of a firm and the level of discretionary accruals. Implying that the more foreigners own share in a firm, the higher AIQ becomes.

4.6.4 Control Variables

The researcher has controlled the effects of some factors through the inclusion of variables which have been used in previous studies and have been seen to be associated with corporate governance and accounting information quality. Thus the reputation of the external Auditor (big four) measured by a binary variable that takes a value of 1 if the company is audited by any of the big four, 0 if otherwise. Literature has linked a high accounting information quality to the financial statements audited by these big four firms (Jara & Lopez, 2011). Another control variable is the firm size which is measured by the natural logarithm of the total asset at the end of the year (Sanchez & Sierra, 2001) as this is regarded as the control of the effect of the size of the firm on its accounting choices. It is believed in literature that the higher the size of the firm, the more it is exposed to greater public and media scrutiny, leading to a negative relationship between the firm size and the level of discretionary accrual.

Table 4.1 Definition of Variables and a priori expected signs

Variable	Measure	Expected sign
Discretionary Accruals	Total Accruals minus Non-Discretionary Accruals	
Board Size squared	The square of the total number of board members	+
Board Independence	Proportion of independent board members	-
Board Diversity	Proportion of women on the board	-
Audit Committee Independence	Proportion of independent audit committee members	-
CEO Duality	Dummy. 1 if the CEO is same as the chairman and 0 if otherwise	+
Institutional Ownership	Percentage of shares owned by institutions	-
Managerial Ownership	Proportion of shares owned by managers or directors	-
Foreign Ownership	Dummy. 1 if the firm has 50% of its shares owned by foreigners and 0 if otherwise	-
Family Ownership	Dummy. 1 if the firm has 50% of its shares owned by a family and 0 if otherwise	+
Firm Size	Log of total assets	-
Big 4 Audit Firms	Dummy. 1 if the firm is audited by the big 4 audit firms and 0 if otherwise	-

4.7 Estimation Strategy

The study employed a panel data technique in analyzing the data set. The fixed effect model and the random effect models were both estimated. The choice of either fixed effects or random effects depends on the assumptions made about the relationship between the unobserved heterogeneity and the explanatory variables in the study. The Hausman test was then conducted to choose the appropriate model for the study.

A fixed effect model is applicable when the unobserved heterogeneity is correlated with the independent variables. The result is that the beta estimates of such independent variables will be biased if such unobserved effects are not controlled in the model. This requires a series of time-specific and firm specific dummy variables to check this effect when using the Least Squares Dummy variables approach. The within estimator however deals with the unobserved heterogeneity by estimating the model as a deviation from the mean observations. This is the approach adopted in the study. The random effect model on the other hand is consistent when these unobserved factors are not correlated with the independent variables. If left out of the model, it will not bias the beta coefficients. These unobserved characteristics are therefore added to the error term. This introduces a complicated variance structure for the error term hence the random effects model is estimated using the Generalized Least Squares estimator (GLS).

4.8 Post Estimation Tests

4.8.1 Test for Heteroscedasticity

The study tested for the presence of heteroscedasticity using the Whites (1980) test. For OLS estimation results to be efficient and unbiased, the variance of the error terms must be constant (i.e. homoscedastic). This does not occur sometimes due to several reasons including incorrect data transformation, incorrect functional forms, omission of important variables from the study, and or skewness in the distribution of one or more regressors included in the model. In such situations, there is the problem of heteroscedasticity. Although it is a problem which is usually associated with cross-sectional data, it is

sometimes present in panel dataset. When heteroscedasticity is present, even though OLS parameter estimates are still unbiased and consistent they are inefficient (i.e. they have larger than minimum variances). In such circumstances, hypothesis tests are invalid due to the possible inflation of the variances which affects the standards tests in linear regression models. Thus, we conducted the test for heteroscedasticity using the White (1980) test.

4.8.2 Test for Multicollinearity

Multicollinearity refers to a situation in which two or more explanatory variables in a multiple regression model are linearly related. We have perfect multicollinearity if, for example, the correlation between two independent variables is equal to +1 or -1. In practice, we rarely face perfect multicollinearity in a data set. More commonly, the issue of multicollinearity arises when there is an approximate linear relationship among two or more independent variables. In the presence of multicollinearity, although OLS estimators are unbiased, they have large variances and co-variances thereby making precise estimation difficult. This tends to make the t-ratio of one or more coefficients statistically insignificant whilst the R-squared tends to be very high. It is however important to note that the presence of multicollinearity is not as much a problem as its severity (Gujarati, 2003). This is because the regressors in a regression model are very likely to be correlated but when such correlation is very high (i.e. high multicollinearity) then the coefficients will be affected. Therefore, the presence of severe multicollinearity will affect the estimates of a regression model. Though there are several ways of testing for the presence and severity of multicollinearity such as the use of auxiliary regressions, correlation

matrix, eigen values and condition index, this study used the Variance Inflation Factor (VIF) to detect the severity of multicollinearity in the model.

4.8.3 Test of Normality

A normal distribution has a symmetric bell-shaped curve defined by two things: the mean (average) and variance (variability). The central idea behind statistical inference is that as sample size increases, distributions will approximate the normal distribution. Most statistical tests rely upon the assumption that your data is “normal”. Tests that rely upon the assumption of normality are called parametric tests. If the data is not normal, then you would use statistical tests that do not rely upon the assumption of normality, called non-parametric tests. Non-parametric tests are less powerful than parametric tests, which mean that non-parametric tests have less ability to detect real differences or variability in your data. Thus, it is important to test for normality of the data to ensure that hypothesis tests are valid in the model. One way of testing for normality is by plotting the histogram which is expected to be bell shaped if the data is normally distributed. This may not be very obvious most of the time. Hence, one statistical test of normality that was employed in this study is the skewness and kurtosis test for normality.

4.8.4 Test for Autocorrelation

Autocorrelation, sometimes referred to as serial correlation, is said to occur in time series regression models when the errors of the disturbances are correlated across periods. This also occurs in panel data due to the time aspect of the data. The presence of

autocorrelation in linear models does not affect the estimate from the model, but affects the variances, thus rendering hypothesis testing invalid. Thus, autocorrelation or serial correlation in linear panel-data models biases the standard errors and causes the results to be less efficient. While a number of tests for serial correlation in panel-data models have been proposed, a new test discussed by Wooldridge (2012) is very attractive because it requires relatively few assumptions and is easy to implement. Hence, the study used the Wooldridge (2012) test for the presence of autocorrelation.

4.8.5 Test for Linearity

One assumption underlying linear regression models is the assumption of a linear relationship between the dependent variable and the independent variables. This is the assumption of linearity. If this assumption is violated, the linear regression will try to fit a straight line to data that does not follow a straight line. Thus, it is important to check the model whether the assumption of a linear relationship holds. Thus, a test for linearity was also conducted in this study.

4.9 Chapter Summary

In this chapter, the following areas have been highlighted: population and sample of the study where all firms listed on the stock exchange are the population whilst twenty non-financial institutions have been sampled from the population. In this chapter, it has been seen that the data used in the calculation of the dependent, independent and the control variables has been obtained from the annual reports of the sampled firms. Because the

study looks at a relationship between variables, the most appropriate research technique employed is the quantitative one. This chapter finally ends with the variable measurement where for example, board independence is measured by the proportion of non-executive directors on the board, and foreign ownership a dummy measured by 1 if the firm has more than half of its shares in the hands of a foreign owner and 0 if otherwise.



CHAPTER FIVE

ANALYSIS AND DISCUSSION OF RESULTS

5.1 Introduction

This chapter presents the empirical results of the study. It begins with the descriptive statistics of the key variables used in the study showing the number of observations, the mean, standard deviation and the minimum and maximum values. It then follows up with the empirical results from all the regression analyses in the study.

5.2 Descriptive Summary Statistics

Table 5.1 presents the sample descriptive statistics for the explanatory and control variables used in this research whereas Table 5.2 presents the descriptive statistics of the dummy variables for CEO duality, family ownership, foreign ownership and big four audit firms (the other control variable).

Table 5.1: Descriptive statistics

Variable	Observations	Mean	Standard Deviation	Min	Max
BSize	188	7.750	1.869	4.000	12.000
BSize squared	188	63.537	30.739	16.000	144.000
Bind	179	0.755	0.152	0.250	0.917
Bdiv	188	0.124	0.134	0.000	0.600
AC Ind	148	0.853	0.147	0.500	1.000
Inst Owner	173	0.162	0.183	0.001	1.096
Manage Owner	172	0.107	0.192	0.000	1.132
Firm Size (GHC million)	183	54.1	1.230	0.154	339

Source: Computations from research data, 2015

Analysis of Table 5.1 shows that Board Size (BSize) is comprised of approximately eight members. Because the minimum number of members on the board is four and the maximum number of members is twelve, a fair difference can be seen to exist across the different firms for this variable. For Board Independence (BInd) about 76 percent of the members on the board are seen to be independent, with a minimum of 25 percent and a maximum of about 92 percent, also suggesting a fairly large difference across the different firms for this variable. It can be seen that for Board Diversity (Bdiv), about 12 percent of the board members are women. With a minimum of 0 percent and a maximum of 60 percent, there exist large differences across the different firms for this variable too. About 85 percent of the audit committees are independent, with a minimum value of about 50 percent and a maximum value of about a 100 percent; there exist some fair differences among the firms in the sample. From Table 5.1, it can also be seen that about 16 percent of the ownership of the firms in the sample are in the hands of institutions. With a minimum of about 1 percent and a maximum of about 100 percent, there also exist large differences between the sampled firms for this variable. In a similar view, about 11 percent of the sampled firms are owned by the managers of these firms. Managerial Ownership (Man Owner) records a minimum of 0 percent and a maximum of about 100 percent. In relation to Firm Size which is one of the control variables, it can be seen that on the average, the mean firm size is GHC 54,100,000 with a minimum and maximum values of GHC 153,712 and GHC 339,000,000 respectively.

Table 5.2: Descriptive statistics of dummy variables

CEO duality	Frequency	Percent	Cumulative percent
CEO same as board chair	19	10.16	10.16
CEO different from board chair	168	89.84	100
Family Ownership			
Firm is owned by a family	11	6.36	6.36
Firm is not owned by a family	162	93.64	100
Foreign Ownership			
Firm is owned by a foreigner	57	32.95	32.95
Firm is not owned by a foreigner	116	67.05	100
Big four			
Audited by a big four audit firm	133	71.12	71.12
Not audited by a big four audit firm	54	28.88	100

Source: Computations from research data, 2015

Analysis of the Table 5.2 above indicates that for the sampled firms, about 10 percent of the firms had a CEO who was the same as the board chair, with the 90 percent separating the CEO and chairmanship role. For the period under review, about 6 percent of the sample had more than 50 percent of the ownership of the firm, in the hands of single family, with the 94 percent dispersed into the hands of other individuals. About 33 percent of the observation had a foreign ownership with the remainder not being owned by any foreigner. With the control variable, 71 percent of the firm-year observations had their financial statements being audited by one of the big four audit firms with the 29 percent having their financial statements audited by firms other than the big four.

Correlations between the explanatory variables are documented in Appendix 3. Discretionary Accruals (DA) for instance is seen to have a negative relationship with board diversity (Bdiv) implying that when there are more women on the board, AIQ is

improved by the reduction in the discretion with which managers are able to manipulate earnings.

5.3 Characteristics of AIQ

5.3.1 Persistence of Earnings and Cash flows

As part of exploring the characteristics of accounting information quality, the characteristics of persistence (cash flow and earnings) are discussed using the Dechow and Schrand (2004) model. Table 5.3 presents the regression results of persistence of earnings and cash flow on lagged operational earnings and lagged operational cash flow respectively.

Table 5.3: Persistence of earnings and cash flow

VARIABLES	Operational earnings (OE)	Operational cash flow (OCF)
Lagged OE	0.397*** (0.089)	
Lagged OCF		0.263*** (0.013)
Constant	8.898*** (1.151)	10.9*** (1.842)
Observations	122	109
R-squared	0.163	0.075
Number of id	19	18

Standard error in parentheses

***, **, * denotes significance at 1 percent, 5 percent, and 10 percent respectively

Source: Computations from research data, 2015

From Table 5.3 above, both earnings and cash flow show significant results at 1 percent with their reported coefficients of 0.397 and 0.263 respectively meaning that there is a 39.7 percent chance that current earnings would be used in predicting future operational earnings and a 26.3 percent chance that future operational cash flows can be predicted from current ones. The persistence of the operational earnings and operational cash flow is in tandem with the conclusions of the studies Barth *et al.* (2001); Dechow and Schrand (2004) who posit that operational earnings are more persistent than operational cash flow since the operational earnings coefficient is greater and closer to 1 than the operational cash flow is to 1.

5.3.2 Conservatism

Table 5.4 shows the regression results of conservatism for the sampled firms. The regressors for this analysis were dummy net income, Lag of net income and interaction of dummy with lag net income.

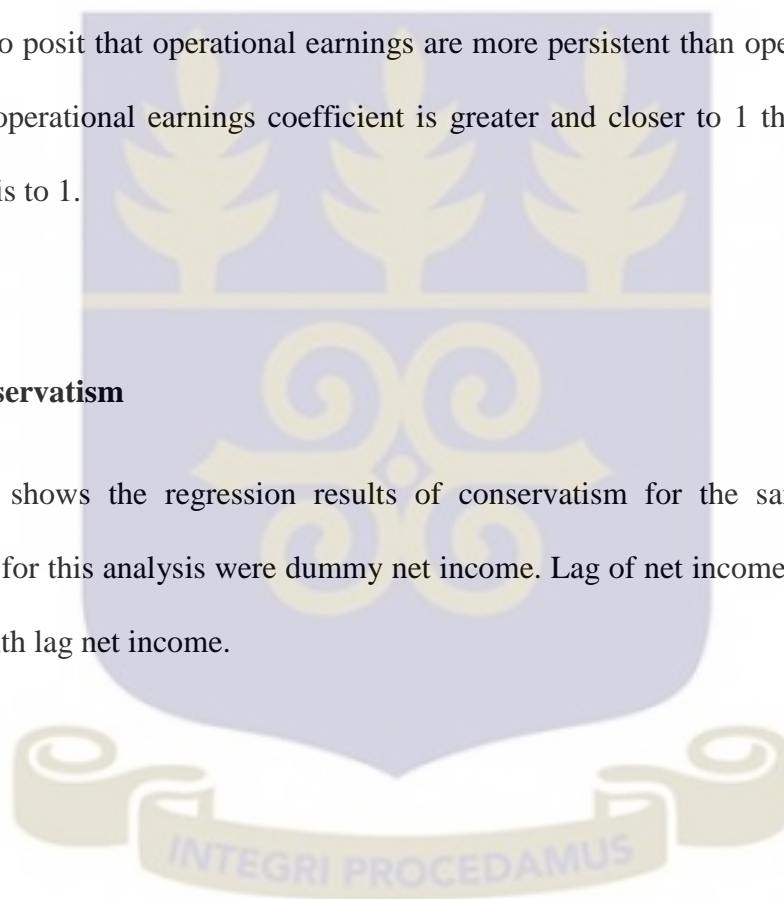


Table 5.4: Conservatism

VARIABLES	Change in Net income
Dummy net income	-0.285*** (0.066)
Lag of net income	0.0007*** (0.000)
Interaction of dummy with lag net income	-0.0006*** (0.000)
Constant	8.46E-10 (0.000)
Observations	146
Number of id	20
R-squared	0.995

Standard errors in parentheses

***, **, * denotes significance at 1 percent, 5 percent, and 10 percent respectively

Source: Computations from research data, 2015

From Table 5.4, it can be seen that the coefficient of lag net income is significant at the 5 percent level. Also, the coefficient of the dummy variable which was captured one when the change in net income is negative and zero if otherwise is negative and significant at the 5 percent level. Finally, the estimates of the coefficients of interaction variable between the dummies of change in net income and the lag of change in net income is negative and significant in the model for the sample used in this study. Since this variable has a negative coefficient, it suggests that the companies listed in the stock exchange in Ghana are more conservative. This indicates that positive earnings do not become a persistent component of the company's profit and thus are reverted in the subsequent periods in the companies' financial statements. This result also confirms earlier works in literature. Also, the estimates presented in this evidence that the sum of the dummy net income and the lag of net income for the sampled firms is less than 0. Hence these figures give the empirical evidence of the timely recognition of losses, which are reverted in

subsequent periods. This conclusion is in sync with the conclusions of Barth *et al* (2001) and Dechow and Schrand (2004).

5.4 Corporate Governance and Accounting Information Quality

The Hausman test was conducted and the results consistent with the fixed effect model. The coefficients of the explanatory variables from Table 5.5 shows a change in AIQ as a result of one unit change in CG and other explanatory variables. The p values indicate whether the variable is significant or not at the 1, 5, and 10 percent levels of significance. These are indicated against the variables with one, two and three stars to represent significance at 10, 5 and 1 percent respectively. The significance of the F statistic also indicates the significance of the overall model.

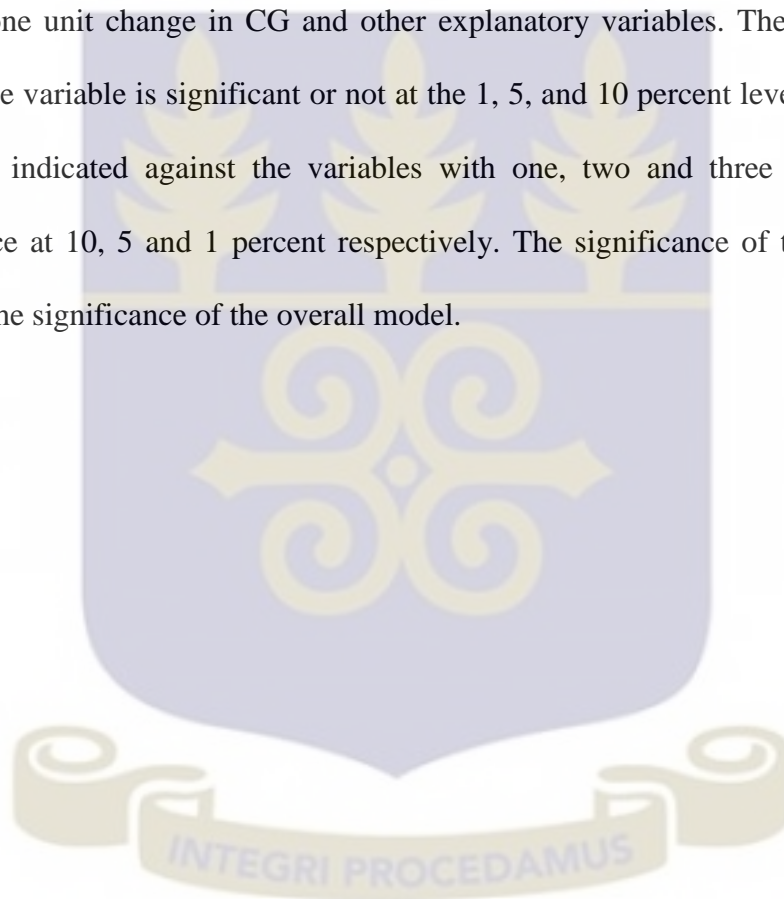


Table 5.5: Corporate Governance Mechanisms and Accounting Information Quality

VARIABLES	DA
BSize squared	0.000 (0.002)
Bind	-1.516** (0.722)
BDiv	-0.134 (0.353)
AC Ind	0.173 (0.376)
CEO Dual	0.505** (0.218)
Firm Size	0.050 (0.056)
Big four	0.235* (0.139)
Constant	-2.190** (0.965)
Diagnostic tests: Chi2(1) = 29.51 (P value = 0.000)	
Observations	69
Number of id	15
R-squared	0.212
F(6,48)	2.13
Prob > F	0.0672

Standard errors in parentheses

***, **, * denotes significance at 1 percent, 5 percent, and 10 percent respectively

Source: Computations from research data, 2015

The results presented in Table 5.5 indicate that board independence and CEO duality are statistically significant at 5 percent significance level and have the expected signs too. The negative relationship between the board Independence and the quality of accounting information means that the more independent board members there are on the board, the lower the tendency of the manipulation of the accounting results of a firm thus the higher the level of the accounting earnings in the firm. This result is in sync with what literature has recorded in the studies of Percy and Erkurtoglu (2008) and Akyeampon *et al.* (2013)

suggesting that the higher the proportion of non-executive directors on the board, the lower the magnitude of discretionary accounting accruals. Therefore boards that are comprised of more non-executive directors constrain earnings management activities.

CEO duality in the regression model which is a dummy showed an expected significant positive sign at 5 percent with a coefficient of 0.505. This implies that a one unit increase if the CEO plays the role as the chairman, there will be a 51 percent increase in the level of earnings management holding all other factors constant. This result is also consistent with the studies of Iyengar and Zampelli (2009) that posit that there is no advantage earned by a firm whose CEO is the same as the board chair.

In addition, the results suggest no evidence that the independence of the audit committee has any direct influence on earnings management.

5.5 Ownership Structure and Accounting Information Quality

The results of the effect of ownership structure on AIQ are presented in Table 5.6.a and Table 5.6.b where the results presented are from the fixed effects model. The first table gives the results of family and foreign ownership on AIQ whilst the second table depicts that of Institutional and Managerial ownerships.

Table 5.6a: Ownership structure and accounting information quality

Variables	Model 1	Model 2
	DA	DA
Board size	0.001 (0.002)	0.001 (0.002)
Board Independence	-1.366 (0.843)	-1.368* (0.791)
Board Diversity	-0.173 (0.402)	-0.171 (0.380)
Audit committee Ind.	-0.008 (0.420)	-0.004 (0.390)
CEO Duality	0.505** (0.243)	0.503** (0.228)
Firm size	0.011 (0.073)	0.011 (0.069)
Big four audit	0.066 (0.205)	0.066 (0.188)
Foreign ownership	-36.190** (16.156)	
Family ownership		10.100 (36.071)
Constant	0.616 (8.800)	-9.712 (9.429)
Observations	65	65
Number of id	15	15

Standard errors in parentheses

***, **, * denotes significance at 1 percent, 5 percent, and 10 percent respectively

Source: Computations from research data, 2015



Table 5.6b: Ownership structure and accounting information quality

VARIABLES	Model 3	Model 4
	DA	DA
Board Size	0.001 (0.002)	0.001 (0.002)
Board Independence	-1.370* (0.765)	-1.461* (0.765)
Board Diversity	-0.335 (0.404)	-0.275 (0.377)
Audit Committee Ind.	-0.096 (0.417)	-0.004 (0.390)
CEO Duality	0.498** (0.220)	0.512** (0.220)
Firm Size	0.004 (0.070)	-0.006 (0.067)
Big four Audit	0.074 (0.184)	0.047 (0.186)
Institutional Ownership	0.436 (0.464)	
Managerial Ownership		0.880 (0.854)
Constant	-1.509 (1.135)	-2.001* (1.177)
Observations	65	65
R-squared	0.205	0.208
Number of id	15	15

Standard errors in parentheses

***, **, * denotes significance at 1 percent, 5 percent, and 10 percent respectively

Source: Computations from research data, 2015

From the regression results, it can be seen that when the CEO is the same as the chairman of the firm and the foreign ownership shares of the firm increases, there would be a lower level of discretionary accruals. This result depicts the expected sign with a statistical significance at 5 percent. In that, anytime foreign ownership of a firm sampled from the stock exchanges increases, the better it would be for the level of accounting information quality since it helps to reduce the level at which managers are able to manipulate the

earnings of the firm. Therefore firms on the Ghana Stock Exchange must be encouraged to have parts of their firms in the hands of foreign owners so as to avoid the manipulations of the health of the firms. This must however be done with a level of caution so as not to give foreigners an upper hand over the local owners. This results is in tandem to the conclusions made in the study of Xu *et al* (2012) and Wang (20016)

5.6 Chapter Summary

In this chapter, the descriptive statistics of the key variables have been presented. Also, the results from the regression results have been discussed. It has been seen from the descriptive statistics that there exist fairly large differences among the firms listed on the Ghana stock exchange for the variables that have been discussed. Also, operational earnings are seen as more persistent than operational cash flows for the sampled firms which means that in making future predictions from current figures, the operational earnings does a better analysis than the operational cash flows. The number of independent directors on the board also has a negative relationship with DA implying that the non-executive directors serve as a constraint to the manipulative behaviours by managers.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter concludes the study on the relationship between corporate governance and the accounting information quality of firms listed in Ghana. It starts with the summary of the study, followed by the conclusions made from the relationship established and ends with the recommendations for stakeholders in their decision making process.

6.2 Summary

The aim of this study was to examine the characteristics of corporate governance and that of accounting information quality, drawing evidence from the firms listed in Ghana. It also looked at the effects of corporate governance mechanisms on accounting information quality, and the effects the types of ownership structure also have on the accounting information quality for the sampled firms.

Data was collected from the annual reports of the firms over an eleven year period (2003-2013), and analyzed using panel data methodology. With the feasible estimations technique used in estimating the regression models. Accounting Information Quality was the dependent variable since it is believed the corporate governance mechanism had an effect on it. It was represented by Earnings Management with discretionary accruals being the proxy used. The independent variables include board size, board independence, board diversity, audit committee independence, expert on the audit committee and CEO duality.

The ownership variables that were used together with the independent variables were the institutional ownership, the managerial ownership, the family ownership and the foreign ownership, with the big four audit firms and the firm size as the control variables.

Descriptive statistics was presented to understand the nature of the corporate governance mechanisms. In particular, comparison was made using the means and how certain firms were further off from the mean. A correlation matrix was done to show any signs of multicollinearity in the data for the study and presented in the appendix.

Finally, the regression results showed that operational earnings were more persistent than operational cash flow at the 1 percent significant level, this evidence corroborate this premise suggesting that accounting earnings are more useful in assessing the future performance of firms listed in Ghana.

Board Independence is found to have a negative relationship with discretionary accruals suggesting that the higher the number of non-executive directors there are on a board, the lower the chances of managers managing the earnings of the firm, thus improving accounting information in Ghana. In addition, CEO duality also show a positive relationship with discretionary accrual, suggesting that if the CEO doubles as the board chair, discretionary accruals are higher.

Foreign ownership is seen to exhibit a negative significant relationship with discretionary accruals for firms whose CEO doubles as the chairman suggesting that the presence of a foreign owner serves as a check on the opportunistic behaviours of managers.

6.3 Conclusion

This study examined the effect of corporate governance mechanisms on financial information quality for a sample of firms listed on the Ghana stock exchange for the period 2004 to 2013. The results indicate that operational earnings are more persistent than operational cash flows in Ghana which is consistent with the empirical literature. Moreover, board independence improves accounting information quality, thus reducing discretionary accruals, whiles CEO duality and big four worsens accounting information quality and contributes to discretionary accruals. Finally, the result from the study shows that ownership also has an effect on accounting information quality.

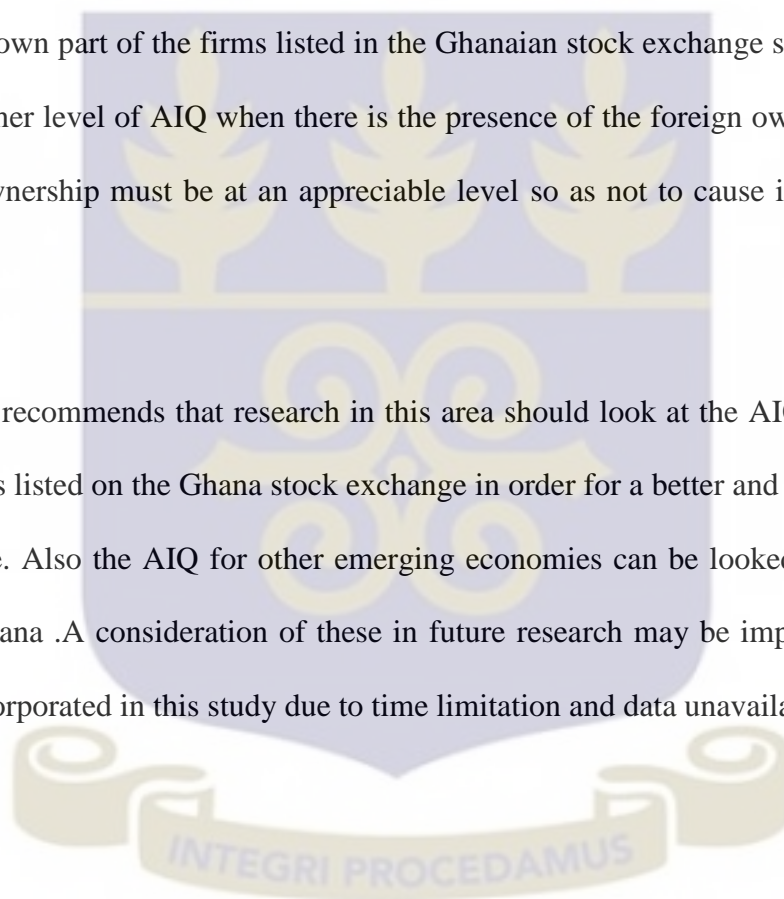
Overall, our findings support the assertion that corporate governance affects accounting information quality, using data from Ghana. Thus, any attempt to improve accounting information quality and to reducing discretionary accruals in Ghana should also take into account the board independence, CEO duality as well as the ownership structure of the firm.

6.4 Recommendations

The findings of this research is of relevance to policy makers, regulators and legislators in making decisions with regards to the issue of AIQ .In achieving a desired level of public confidence in the annual reports of firms, factors such as board independence, CEO duality and the foreign ownership structure have to be checked and managed properly if accounting information quality can be improved in Ghana.

Specifically, a policy to ensure that a desired level of board independence is maintained is key. An enforceable level of board independence with penalties for those who do not abide by this directive is relevant. Also the practice of CEO duality by listed firms should be discouraged as this has been seen to impact negatively on the quality of accounting information. There should be guidelines stating clearly the level of ownership structure permissible by family, institution, foreign or a manager. Foreigners should be given a chance to own part of the firms listed in the Ghanaian stock exchange since this study has seen a higher level of AIQ when there is the presence of the foreign owner. However, the foreign ownership must be at an appreciable level so as not to cause issues for the local owners.

The study recommends that research in this area should look at the AIQ for the financial institutions listed on the Ghana stock exchange in order for a better and comparative study to be done. Also the AIQ for other emerging economies can be looked at in relations to that of Ghana .A consideration of these in future research may be important. This could not be incorporated in this study due to time limitation and data unavailability.



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APPENDIX**Post Estimation tests****1. Modified Wald test for heteroscedasticity**

Test for Heteroscedasticity

Modified Wald test for group wise heteroscedasticity in fixed effect regression model

H0: $\sigma(i)^2 = \sigma^2$ for all i

chi2 (7) = 42.77

Prob>chi2 = 0.0000

2. Hausman test of fixed or random effects

Test: Ho: difference in coefficients not systematic

 $\text{chi2}(1) = (b-B)'[(V_b-V_B)^{-1}](b-B)$

= 29.51

Prob>chi2 = 0.0000

3. Wooldridge test for autocorrelation in panel dataH₀: No first-order autocorrelation

F(1, 8) = 2.646

Prob > F = 0.1425



4. Correlation matrix

	DA	BSize	BInd	Bdiv	AC Ind	CEO dual	Firm size	Big four
DA	1							
	-							
Bsize	0.063	1						
Bind	0.305	0.223	1					
	-	-	-					
Bdiv	0.134	0.196	0.466	1				
	-	-	-	-				
AC Ind	0.097	0.170	0.186	0.127	1			
	-	-	-	-	-			
CEO dual	0.052	0.239	0.107	0.223	-0.230	1		
	-	-	-	-	-	-		
Firm size	0.173	0.745	0.206	0.296	-0.134	-0.327	1	
	-	-	-	-	-	-	-	
Big four	0.083	0.056	0.064	0.098	-0.285	0.069	0.048	1

5. Shapiro-Wilk test for normal data

Variable	Observations	W	V	z	P value
Residual	65	0.97859	1.241	0.468	0.32006

